Draft Programmatic Environmental Impact Statement

Washington State's Draft Rule on Wetland Mitigation Banking

WAC 173-700
Compensatory Wetland Mitigation Banking

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Fact Sheet

Title:	Washington State's Draft Rule on Wetland Mitigation Banking.
Description:	The proposal is to develop a rule and certification program for wetland mitigation banks that provides a unified, predictable and efficient process for the approval of ecologically successful and sustainable wetland mitigation banks.
Proponent:	Shorelands and Environmental Assistance Program, Washington Department of Ecology.
Proponent Contact Person:	Lauren Driscoll
SEPA Lead Agency:	Shorelands and Environmental Assistance Program, Washington Department of Ecology.
SEPA Responsible Official:	Gordon White, Manager Shorelands and Environmental Assistance Program Washington Department of Ecology P.O. Box 47600 Olympia, WA 98504-7600
Lead Agency Contact Person:	Lauren Driscoll
Action Required:	Adoption of a statewide mitigation banking rule and certification process under the authority of the RCW 90.84.
EIS Authors:	Lauren Driscoll and Teri Granger
Date DEIS Issued:	January 2, 2002
Date DEIS Public Comments Due:	February 15, 2002
Public Hearings:	**January 23, 2002 7 p.m.** Department of Ecology, 300 Desmond Drive, **Olympia**, WA **January 30, 2002 7p.m.** Best Western Hallmark Inn 3000 Marine Drive, **Moses Lake**, Washington

Subsequent Environmental Review:	Individual wetland bank proposals will require additional SEPA review. The site-specific effects of the construction of a wetland bank and its operation will need to be addressed separately during the bank certification process.
Location of EIS Information:	Shorelands and Environmental Assistance Program Washington Department of Ecology 300 Desmond Drive Lacey, WA Persons desiring to view the EIS information files are encouraged to make an appointment by telephoning (360) 407-6861 or sending an e-mail to ldri461@ecy.wa.gov
Incorporations by reference:	Refer to reference section at the end of the document. These materials are incorporated by reference and copies of these materials may be viewed at the Department of Ecology, Shorelands and Environmental Assistance Program.
Cost of DEIS:	Free for the initial printing of the DEIS. Once the initial printing supply has been exhausted, standard reproduction costs will apply.
Comments on the DEIS:	Comments on this DEIS may be submitted by postal mail, facsimile (fax), or e-mail. All comments must be postmarked or date stamped no later than February 15, 2002.

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Introduction to the Document

Overview of the Document

This report describes the concept of mitigation banking, outlines the key components of a wetland mitigation banking program and identifies the potential environmental consequences of various alternatives. This report also explains the steps taken by the Department of Ecology (Ecology) through the rule development process to determine the preferred alternative for rule language.

Purpose of this Document

This document identifies and describes the potential effects of wetland banking as administered under the proposed draft rule. In doing this, it satisfies the State Environmental Policy Act (SEPA) which requires state and local agencies to evaluate the potential environmental effects of actions that they undertake.

This document also serves as an educational resource. It provides extensive information on wetland mitigation banking and the draft certification program through which individual banks are approved.

Wetland mitigation banks pursuing state certification may use this document to address the programmatic (or general) effects of banking when completing SEPA analysis of specific banks. Because of the programmatic nature of this document, individual bank proposals will need additional SEPA review. The site-specific effects of the construction of a wetland bank and its operation will need to be addressed separately during the bank certification process.

Proposed Guidance Document

Ecology will develop a guidance document on wetland mitigation banking and the state certification process. The rule governing the creation and operation of banks may be used with or without this guidance document. The guidance document will provide additional clarification and examples that are too detailed to include in the rule, but it won't contain any additional required elements. It will include a variety of examples of site selection, extent of service area, design and credit valuation as well as bank scenarios that meet the requirements for incentives.

The guidance document will be written for bank sponsors, local governments and the public. It will be developed in cooperation with interested agencies. The public will have an opportunity to review and comment on the guidance document prior to its publication.

Summary

Organization of Draft Programmatic EIS

Chapter 1 provides a description of wetland mitigation banking, its history, and the types of mitigation banks. It discusses the legislation regulating wetland mitigation banking in Washington State and the rule being proposed to guide implementation of the law.

Chapter 2, **The Effects of Mitigation Banking**, describes the impacts of wetland mitigation banking, both positive and negative, and it includes an extensive discussion of the beneficial impacts of wetland banking.

Chapter 3, **The Draft Rule: Approach, Certification Process and Operational Requirements**, concentrates on describing the draft rule in detail. Each section describes the topic, the statutory requirements, the draft rule language, and the rationale for that rule language. The Chapter includes the underlying approach used in developing the rule, how the certification process will work (describing the roles of Ecology, local jurisdictions, federal agencies, the tribes, and the public), and concludes with a comprehensive section on how site-specific monitoring, tracking, use of credits, compliance, incentives, and financial assurances will work.

Chapter 4, **The Draft Rule: Technical Requirements**, addresses how service areas are determined, how sites are selected, how credits are determined and how credits are released. As in Chapter 3, each topic is described, the statutory requirements are listed, and the draft rule language and the rationale for that language is discussed.

The Draft Programmatic Environmental Impact Statement concludes with References and Additional Readings sections, a Glossary of terms, and three Appendices: Appendix A lists the members of the Advisory Team; Appendix B provides a copy of the legislation, RCW 90.84; and Appendix C is a copy of the Draft Rule, WAC 173-700.

Need for Wetland Mitigation Banks

The concept of mitigation banking has been around since the 1970s. However, most recently there has been a renewed interest in its use as a regulatory tool. Mitigation banking generates credits by restoring, creating, enhancing and/or preserving wetlands. These credits are used to compensate for impacts to wetlands within a designated service area. Mitigation banks typically involve the consolidation of many small wetland mitigation projects into a larger, potentially more ecologically valuable site. Further, mitigation banks involve up-front compensation prior to harming a wetland at another site. This assures the success of the mitigation before unavoidable damage occurs at another site. With proper implementation and guidelines, mitigation banking has the potential to increase ecological benefits of compensatory mitigation and save money for project applicants.

The 1998 Washington State Legislature found that wetland mitigation banks are important tools for providing compensatory mitigation for unavoidable impacts to wetlands and that banking provides certain benefits over concurrent mitigation. Further, they found that the success of concurrent mitigation is extremely variable and the compensatory mitigation usually occurs after project impacts to wetlands, resulting in temporal losses of important wetland functions. In many cases, concurrent mitigation fails, resulting in a complete loss of wetland functions.

While wetland mitigation banking has been an option for providing compensatory wetland mitigation for unavoidable impacts to wetlands, due to its complexity and the lack of any formal process for obtaining approvals for bank proposals, few banks have been developed in the state of Washington.

Authority

Due to the low success rate of compensatory mitigation, the legislature initiated a review of the implementation of wetland protection rules during the 1997-98 session. Several issues were raised during the review. To help address these issues, the Washington State legislature adopted RCW 90.84, *Wetlands Mitigation Banking*. For the full text of the law, see Appendix B.

RCW 90.84 solidifies the legislature's support of wetland mitigation banking as a viable option for providing compensatory wetland mitigation. It affirms the state's authority to regulate wetland mitigation banking. The statute set minimum guidelines for the establishment of banks and directed Ecology to develop a statewide rule for the certification of wetland mitigation banks using a collaborative process.

Objective of this Proposal

The primary objective of this proposal is to develop a rule and certification program for wetland mitigation banks that provides a unified, predictable and efficient process for the approval of ecologically successful and sustainable wetland mitigation banks. This is part of the legislative requirement. A secondary objective is to provide an effective tool for providing compensatory mitigation for unavoidable wetland impacts.

Purpose of the Draft Programmatic Environmental Impact Statement

The purpose of this Draft Programmatic Environmental Impact Statement is to review and evaluate the various alternatives associated with key wetland mitigation banking elements; to identify potential adverse effects from the various alternatives and the preferred alternative; and to articulate the potential benefits of banking with a statewide rule and certification process. In addition, this DEIS will satisfy State Environmental Policy Act (SEPA) requirements pertaining to the environmental significance of the concept of mitigation banking under the statewide rule and the specific thresholds or procedures published in the final rule. However, the advisory team stressed that the rule language needed to remain flexible in order for the specific conditions and requirements for a wetland mitigation bank to be made on a case-by-case basis by the multi-agency Mitigation Bank Review Team. Thus, considerable SEPA review may still be required to evaluate the potential effects of the establishment and use of individual banks. Additionally, SEPA review will be done for most individual debit projects (projects that use bank credits as compensation for unavoidable impacts).

Description and Analysis of Alternatives

Alternatives and analyses are outlined for:

- Service area size
- Site selection
- Determination of credits
- Phased release of credits based on performance standards
- Monitoring and compliance strategy
- Public involvement
- Use of credits

Each of the key issue discussions reviews statutory guidance, Federal Guidance on mitigation banking, existing practices within Washington and in other states that pertain to banking and alternatives reviewed by the wetland mitigation banking rule development advisory team. The preferred alternatives appear in the draft rule 173-700 WAC, August 14, 2000.

Scoping comments

Scoping comments that are discussed in this document are:

- Service area criteria
- Discussion of the impact of transferring wetland credits (off-site mitigation)
- Discussion of conversion rates for generating credits
- Discussion of compensation ratios applied to debit projects
- Other issues surrounding the use of credits
- Use of banking to address cumulative impacts

Frequently Expressed Concerns

During the rule development process, several concerns were raised on a consistent basis regarding the implementation of a wetland mitigation banking program:

- Wetland banking could promote impacts to wetlands through bypassing mitigation sequencing requirements.
- Wetland banking is very risky because compensatory mitigation doesn't work and banks will result in larger-scale failures.
- Wetland mitigation banks could result in the net loss of wetlands in some sub-basins.
- Use of upland areas and preservation to generate credits would result in net losses of wetland area and function.
- Wetland banks will result in the loss of wetlands in urban areas and their replacement in rural and agricultural areas resulting in a redistribution of wetlands on the landscape.
- Wetland mitigation banks could result in the loss of small, isolated wetlands and their replacement with large, contiguous wetlands.
- Concerns over listed salmon species could result in wetland banks focusing on fish benefits with resulting losses to non-fish-bearing wetlands.
- The public will not have adequate opportunity to provide input on the design and requirements for wetland mitigation banks.

This document reviews each of these concerns and what the effect of the draft rule will be on each of them.

Evaluation of Alternatives

Each key element had several potential alternative approaches that could be used in the development of the draft rule. The alternatives for each key element were discussed in advisory team meetings after team members and a list of interested individuals (identified during the scoping phase) were given a chance to review and comment on detailed issue papers. After detailed discussions of each alternative, the team worked to craft a preferred alternative that in many cases was a hybrid of several alternatives. The preferred alternatives crafted and approved through consensus resulted in the language proposed in the draft rule WAC 173-700. "Consensus" in this process was defined as unanimous agreement that each member could live with the proposed alternative.

The team was unable to come to consensus on three elements:

1. Sequencing. Some representatives wanted stronger language in the rule on mitigation sequencing. Mitigation in the rule is defined as "**sequentially avoiding** impacts, **minimizing** impacts, and **compensating** for remaining **unavoidable impacts** to wetlands. The rule states the credits from a wetland bank may be used to compensate for "unavoidable" impacts to wetlands and further defines unavoidable as "adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved".

2. Appeals process. One participant wanted the rule to include the ability to appeal a permitting decision for a debit project proposing to use credits from a bank. The appeal process in the draft rule only includes appeals of a bank's certification.

3. Language for long-term protection requirements for bank sites. The team attained consensus on the conceptual approach for long-term protection but was unable to gain consensus on the precise rule language concerning conservation easements.

In each of these three cases, Ecology made the final determination on language in the draft rule.

Conclusion

Wetland banking under the proposed draft rule is not anticipated to result in significant adverse impacts to the environment.

Wetland mitigation banks may result in some minor adverse effects to the environment including loss of functions in some sub-basins, relocation of wetlands on the landscape and tradeoffs in functions. It should be noted that these same adverse effects occur, and will continue to occur, with status quo mitigation. With banking, however, such adverse effects will be minimized through the use of several safeguard mechanisms incorporated into the certification process such as:

- The use of inter-disciplinary team review of proposals,
- Requirements for detailed baseline information on the bank site and potential wetland impacts within a banks' service area;
- Phasing the release of credits until specific performance measures are attained;
- Requirements for financial assurances;
- Documentation of sequencing at the debit stage;
- A program to provide oversight of operating wetland mitigation and procedures for ensuring banks to comply with the terms of their certification; and finally,
- The analysis of compensatory mitigation from a landscape perspective.

In general, we anticipate that wetland mitigation banks will provide more ecologically successful compensatory mitigation than status quo, concurrent mitigation.

1.0 Introduction

This chapter provides an overview of wetland mitigation banking and the history of banks in Washington State (see Section 1.1). It also describes Washington State's wetland banking law (Section 1.2), the process used to develop the draft rule (Section 1.3) and a brief overview of the rule (Section 1.3.2).

1.1 Wetland Mitigation Banking

Wetlands are protected and regulated because of the functions they provide, their rarity or uniqueness. Several statutes govern the management and protection of the state's wetlands. These include:

- Section 404 of the Federal Clean Water Act[1]
- Section 10 of the Rivers And Harbor Act[2]
- Washington State Hydraulic Code[3]
- Washington State Shoreline Management Act[4]
- Washington State Growth Management Act[5]
- Washington State Water Pollution Control Act[6]
- Washington State Forest Practices Act[7]

Each of these laws includes mechanisms requiring that damage to wetlands be avoided and minimized. This is accomplished through mitigation sequencing. Sequencing requires that project applicants must first **avoid** impacts to the greatest extent possible. Remaining wetland impacts must be **minimized**. For example, minimization may include limiting the clearing of vegetation in wetlands and the placement of temporary construction roads and staging areas in non-wetland areas. When unavoidable impacts to wetlands will occur, a project applicant is usually required to provide **compensatory wetland mitigation** to replace the affected functions and wetland area.

[1] Federal Water Pollution Control Act (42 USC 4321 *et seq).*
[2] *ibid*
[3] RCW 75.20
[4] RCW 90.58, WAC 173-200, as amended
[5] RCW 36.70A
[6] RCW 90.48
[7] RCW 76.09

Compensatory wetland mitigation includes a range of options, from the use of on-site, in-kind mitigation (where the same type and classification of wetland is created on the project site) to off-site, out-of-kind wetland mitigation. Out-of-kind compensation means that the type of replacement wetland is different from the affected wetland (e.g., compensating for impacts to a wet meadow with the restoration of a forested wetland). Most compensatory mitigation is done either at the same time or after the impacts have occurred. This type of mitigation is referred to as “concurrent” mitigation. Concurrent mitigation also results in temporal losses of important wetland functions because there is a time lag between when the wetland functions are lost and when the mitigation site is fully functional.

Wetland mitigation banking, as described below, provides an alternative to concurrent compensatory mitigation. Banking is not the solution to ongoing losses of wetlands or the frequent failure of concurrent mitigation to live up to expectations. Banking is simply one tool which, along with the state policy for alternative mitigation[8] and the Aquatic Resources Act, RCW 90.74, provides Ecology, the Washington Department of Fish and Wildlife and local governments, with ways to encourage more ecologically successful mitigation than the status quo, on-site mitigation.

1.1.1 Historical Background

The concept of mitigation banking has been around since the 1970s. In the late 1980s and early 1990s, interest in wetland mitigation banking increased and several banks were established on an ad hoc basis with the regulatory agencies. In 1995, the federal government codified its support of wetland banking with the development of the *Federal Guidance.* The guidance was developed through a collaborative effort by all of the federal agencies involved in wetland regulation. By 2000, the number of mitigation banks in the county had grown to at least 350 banks (Brumbaugh 2001). The early mitigation banks were primarily single-user banks and most of those were public agency banks. After the *Federal Guidance* was released, the number of entrepreneurial banks increased rapidly.

[8] The state Alternative Mitigation Policy was developed in 2000 by Ecology, the state Department of Transportation , the state Department of Fish and Wildlife, and the Office of Community Development. The policy outlines how Ecology and Washington Department of Fish and Wildlife will review off-site mitigation options in a watershed context. The policy was developed in response to guidance from the legislature in the Salmon Recovery Act (RCW 75.46). The agencies developed the guidance to clarify when alternative forms of mitigation (off-site, out-of-kind, the use of preservation alone) may be environmentally preferable to on-site mitigation.

Congress further supported the federal agencies' position on wetland mitigation banking in 1998 when it included a provision in the federal transportation funding bill, the Transportation Equity Act for the 21st Century[9] (also known as TEA-21), that expressed a clear preference for the use of wetland banks to compensate for federally funded highway projects (Gardner 2000).

1.1.2 Definition of Wetland Mitigation Banking

Throughout this document, the term "banking" is used. Unless otherwise noted, the term banking refers to wetland mitigation banks or a program of wetland mitigation banking and does not refer to financial institutions.

"Mitigation banking has been defined as wetland restoration, creation, enhancement, and in exceptional circumstances, preservation undertaken expressly for the purpose of compensating for unavoidable wetland losses in advance of development actions, when such compensation cannot be achieved at the development site or would not be as environmentally beneficial." *Federal Guidance* on Wetland Mitigation Banking (hereafter referred to as the *Federal Guidance*)[10]

Wetland mitigation banks have two components:

- A physical place where wetland "credits" are generated by restoring, creating, enhancing and/or preserving wetlands.
- An organization (or part of an organization) which creates the structure (bank instrument) and provides the management for the physical place.

Credits can be used (debited) to compensate for unavoidable impacts to wetlands within a designated geographic area (service area). A bank's service area is akin to its "market area" or the area in which credits may be sold or used. Projects that use bank credits as compensation are called "debit projects."

Banks are protected in perpetuity with a designated long-term manager. Bank sponsors post financial assurances whenever credits are released prior to the full success of the bank project and for the long-term management of the bank site(s).

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[9] See US Public Law No. 105-178, 112 Stat. 107 (1998)

[10] The ***Federal Guidance for the Establishment, Use and Operation of Mitigation Banks*** was developed by the U.S. Army Corps of Engineers, Environmental Protection Agency, Natural Resource Conservation Service, U.S. Fish and Wildlife Service and National Marine Fisheries Service in response to a need for a unified federal policy on wetland mitigation banking. The final policy was filed in the Federal Register in 1995. (FR Vol. 60, No. 228, November 28, 1995. pp. 58605-58614)

1.1.3 Use of Wetland Mitigation Banks

Withdrawals or debits from a mitigation bank are considered when an unavoidable impact to a wetland within the bank's service area is proposed. If approved during the permitting process, the developer purchases credits from the bank as compensation for the authorized wetland impacts. Credits are deducted, or debited, from the wetland mitigation bank. This can be repeated as long as the mitigation bank has available credits.

Use of credits from mitigation banks, typically, is allowed only after the sequence of avoidance and minimization of impacts has been satisfied. The permitting agency(ies) determine if the bank credits provide adequate compensation for the losses. Considerations of the appropriate use of credits include whether on-site mitigation for the debit project is practicable and appropriate, if off-site mitigation is ecologically preferable and whether the bank provides similar wetland functions to those affected by the debit project.

1.1.4 Types of Wetland Mitigation Banks

There are several types of wetland mitigation banks:

- Public banks
    - Single user
    - Multiple user
    - Joint-venture banks
- Private banks
    - Single user
    - Multiple user
- Entrepreneurial banks

Public Banks

Public banks include those banks established by public entities for infrastructure projects: roads, utilities, ports and municipal storm water management. They may be created for a single user or multiple users.

A single-user public bank is developed by a single organization, such as a county or state transportation department or port authority. They typically use the bank to compensate for wetland losses from their own projects. Washington Department of Transportation's banking program is an example of a single-user public bank program.

A public multi-user bank is developed by one or more public entities to provide mitigation for multiple public entities affecting wetlands in the bank's service area. King County's wetland bank on the Issaquah plateau is an example of a public multi-user wetland bank. This bank was developed by the county transportation department, the water and land resources division and the Sammamish Plateau water and sewer district to provide compensatory mitigation for public projects in the Sammamish watershed.

A public agency may also establish a wetland bank to be used by multiple public and private users. Banks established to implement land-use plans are examples of multi-user banks. The West Eugene Wetland Mitigation bank in Oregon is an example of this type of multiple-user bank. The city of West Eugene oversees and manages the bank and applicants (public or private users) located within the bank's service area may purchase credits to meet permit requirements.

Another type of public bank is a joint-venture bank where a public entity, usually a local government, jointly establishes a bank with a private entity in order to provide compensatory mitigation alternatives for residential and commercial development.

Private Banks

A corporation or private developer may develop a wetland mitigation bank to address their own long-term development needs for compensatory mitigation. Alternatively, a group of developers may jointly develop a mitigation bank in order to combine resources and reduce the costs for compensatory wetland mitigation.

Entrepreneurial Banks

A private individual or firm may establish a private or entrepreneurial bank to sell credits to project proponents needing mitigation in a specified service area. Private entrepreneurial banks serve both private individuals and public entities. The Meadowlands Bank in Clark County and the McHugh Demonstration Estuarine Bank in Pacific County are both examples of entrepreneurial banks in Washington.

Nationally, the business of wetland mitigation banking has evolved considerably over the last decade and entrepreneurial bankers have established a National Mitigation Banking Association. The Association works on issues related to banking including lobbying for federal legislation.[11]

1.1.5 Existing Wetland Banks in Washington

A total of six wetland mitigation banks and banking programs are currently in existence in Washington State:

- Washington State Department of Transportation (three sites under development)
- Pierce County Public Works Department
- Paine Airfield, Snohomish County
- King County (one bank site and administrative rules)
- Meadowlands Bank, Clark County
- McHugh Estuarine Wetland Demonstration Bank, Pacific County

Existing Public Mitigation Banks

Public wetland mitigation banking activity in Washington State began in earnest in the early 1990s. The Washington State Department of Transportation (WSDOT) initiated the first effort on wetland mitigation banking in the state. WSDOT began negotiations with the federal and state regulatory agencies on a mitigation banking Memorandum of Agreement in 1992. The Memorandum of Agreement was completed and signed in 1994. It addresses how WSDOT will establish and operate a wetland mitigation banking program to meet transportation-related wetland compensation needs. The Memorandum contains information on agency coordination, bank site selection, debiting ratios and monitoring requirements for WSDOT banks.

WSDOT currently has a wetland mitigation bank under construction and a second being planned in the Chehalis River basin. These banks are designed to provide compensatory mitigation for impacts from the proposed upgrade of Interstate 5, which is planned to occur over a 20-year period. WSDOT also has another bank located in Moses Lake, Grant County, which was developed to mitigate for highway impacts in the Columbia Basin.

The Pierce County Public Works Department began its wetland mitigation banking program in 1994. The banking program consists of several sites located in various sub-basins in the county. In several cases, the sites were selected to provide compensatory

[11] The National Banking Association has been actively working on passage of H.R. 1474, "The American Wetland Restoration Act." This legislation seeks to amend the federal Clean Water Act to codify the guidance on banking outlined in the *Federal Guidance.*

mitigation for specific projects. The bank sites were designed to provide more mitigation than was needed for the initial project. The extra credits produced at the bank sites are used for local permit requirements and occasionally are used to meet federal permit conditions for county public works projects. Although the program is primarily a single-user public bank system, WSDOT has been able to purchase credits out of the county bank system.

The Paine Airfield wetland mitigation bank (1996) was designed to provide compensatory wetland mitigation for impacts anticipated under a 20-year airport expansion plan. This bank is a multiple-user bank. It also provides mitigation for other public agencies affecting wetlands in the bank's service area. WSDOT and the Snohomish County Public Works Department have both used the bank to meet mitigation obligations for road improvements associated with airport operations.

King County established a wetland mitigation bank on the Issaquah Plateau in 1996. The bank was established to provide mitigation for public projects. It is a joint-venture bank. Although managed by King County, credit ownership is based on cost-share of the project. The credit ownership is divided as follows: 50 percent Sammamish Plateau Water & Sewer District, 25 percent King County Water and Land Resources Division and 25 percent King County Roads Division.

Existing Entrepreneurial Mitigation Banks

During the last two years, the interest in privately established and managed wetland mitigation banks has increased dramatically. Several factors have probably contributed to this increase.

First, there has been a decline in small family farms with a concurrent rise in land costs and tax burdens in agricultural areas which are located near developing areas. Farmers are looking for alternative methods for generating income and preserving their lands.

Second, the increasing recognition that wetland systems provide significant public services has increased their economic and social value.

Third, increasing growth, particularly in the Puget Sound area, Skagit and Whatcom counties, southwestern Washington, the Tri-Cities and Spokane areas (The Olympian 2000), provides a consistent level of demand for compensatory wetland mitigation.

Finally, there is a perceived opportunity to produce significant profits from a wetland mitigation bank. Developers are willing to pay significant sums in order to provide compensation for their impacts and obtain development approvals. It is, however, not unusual for concurrent compensatory mitigation to cost tens of thousands of dollars per acre, excluding land costs (King 1994). In commercially zoned areas, mitigation costs are especially prohibitive and can exceed hundreds of thousands of dollars per acre when land costs are included (Perkins et al. 1997). Therefore, developers may choose buying credits from a wetland mitigation bank over creating their own compensatory mitigation.

The Meadowlands Bank, constructed in 1996, was the first private entrepreneurial wetland mitigation bank established in Washington State. This bank has provided mitigation for a number of development projects in the rapidly developing Salmon Creek basin of Clark County. Clark County approved the bank to provide compensatory mitigation required under the local critical areas regulation. The bank did not receive approvals on the state or federal levels. However, the U.S. Army Corps of Engineers and Ecology have elected to allow use of the bank for compensation required under the Clean Water Act on a case-by-case basis.

The McHugh Estuarine Wetland Demonstration Bank is a six-acre, restored estuarine wetland in Pacific County. It provides mitigation credits for local projects and has also been used to meet U.S. Army Corps of Engineers requirements under a Section 404 authorization. Similar to the Meadowlands bank, this demonstration bank was approved by Pacific County**.** The McHugh demonstration estuarine wetland bank could not be approved on the state level due to the timing of the rule development. The bank was developed to demonstrate the feasibility of developing estuarine banks and restoring estuarine wetlands. Because of its relatively small size, the U.S. Army Corps of Engineers did not elect to approve the site as a federal wetland mitigation bank. However, they have accepted use of credits from the demonstration bank as compensatory mitigation required under their Section 404 permitting program.

1.1.6 Future Banks in Washington

Where Impacts Are Anticipated To Occur

It is anticipated that wetland mitigation banks will be established in areas where increased development and changes to the natural environment are taking place. As part of the initial decision-making for establishing a bank, bank sponsors will perform a market analysis of potential credit demand. Banks are not likely to be established in areas where development is not occurring and where there is not a demand for compensatory mitigation.
The rapidly developing areas of the state are the most likely locations for wetland banks to be established. These include the counties adjoining Puget Sound and the Straits of Juan de Fuca, Clark and Pacific Counties in southwest Washington, the Yakima and Tri-Cities areas and Spokane County (The Olympian 2000).

It is likely that land costs will result in wetland mitigation banks tending to be located outside of urban growth areas. While market forces of supply and demand will affect how much a bank sponsor can charge for credits and hence how much a customer is willing to pay, bank sponsors will attempt to increase their ability to derive a profit by minimizing their costs to produce credits. In most of the urbanizing areas of the state, there is a large disparity between land costs inside of urban growth areas and those areas designated as rural. For example, prices for developable lands in urban areas can run in excess of several hundred thousand dollars per acre compared to a few thousand dollars per acre for lands in agricultural use. Unless the regulating entities require compensatory mitigation to occur within the urban growth boundary area, it is anticipated that there will be a shift of wetland resources to areas outside of the urban growth area where land costs are considerably cheaper.

Types of Banks - Ownership

Three primary types of banks may become more numerous in the state after the adoption of the proposed certification program:

- single-user
- public banks
- private entrepreneurial banks

Single-user banks are most likely to be associated with large corporations with anticipated growth and expansion such as manufacturing, technology and service industries. These large corporations may establish a bank initially as a single-user bank and then convert it to a multiple-user bank at a later date. Corporations can reduce their financial risks by opening up the bank for other users. If their project doesn't use the credits created through the bank, they can recover their investment through the sale of credits to other parties.

Some local governments will most likely establish **public wetland banks** to implement watershed recovery goals. They could recover the costs of restoring wetlands in a watershed by selling mitigation credits that are generated at the sites to the public. In some cases, establishment of a public banking program may require revisions to local budget rules and the establishment of a mitigation revolving fund to administer and track the bank transactions.

Private **entrepreneurial banks** are anticipated to be established after the rule is adopted. While mitigation banking is a speculative business that requires substantial risk on the part of the bank sponsor, wetland banking has developed its own industry. The increase in entrepreneurial banking elsewhere in the country reflects the significant profits that can be generated by a successful wetland mitigation bank.

1.2 The Legislation Regulating Wetland Mitigation Banking--RCW 90.84

1.2.1 The Need for Legislation

Several recent studies (Mockler et al. 1998, Johnson et al. 2000, Gwin et al. 1999) indicate that the majority of individual compensatory mitigation sites are not successfully replacing functions lost due to authorized impacts to wetlands. Each study cites potential reasons for mitigation site failures:

- Poor site selection
- Inadequate design
- Lack of water
- Invasive vegetation
- Poor construction techniques
- A lack of follow-up and monitoring of sites

In a few cases, the concurrent compensatory mitigation totally failed, resulting in a complete loss of wetland area and functions. Even when a compensatory mitigation site develops successfully, the replacement of lost functions may take years or even decades and may never attain the level of function performance of natural wetlands (Zedler and Callaway 1999, King et al. 1993).

Due to the low success rate of compensatory mitigation, the legislature initiated a review of the implementation of wetland protection rules during the 1997-98 session. Several issues were raised during the review. These included:

- Lack of success of existing mitigation practices
- Unpredictability of permitting processes
- High cost of wetland permitting and compensatory mitigation
- Lack of a consistent regulatory approach to compensation requirements.

To help address these issues, the Washington State legislature adopted RCW 90.84, *Wetlands Mitigation Banking*. The law originated in a subcommittee of the House Local Government and Regulatory Reform Committee and was originally sponsored by Representative Bill Thompson. For full text, see Appendix B.

RCW 90.84 solidifies the legislature's support of wetland mitigation banking as a viable option for providing compensatory wetland mitigation. It affirms the state's authority to regulate wetland mitigation banking. The statute sets minimum guidelines for the establishment of banks and directs Ecology to develop a statewide rule for the certification of wetland mitigation banks using a collaborative process.

RCW 90.84, *Wetlands Mitigation Banking,* directed Ecology to use a collaborative process to develop a rule for certifying wetland mitigation banks. The legislation required that the state rule be consistent with the existing Federal Guidance on the establishment, operation and use of mitigation banks. The law identified several aspects of wetland mitigation banking that needed to be addressed in the rule. These included provisions for:

- Giving priority to banks that restore degraded or former wetlands
- Adequate assurances of success for banks including creation and restoration
- Banks using preservation of wetlands in conjunction with restoration, creation or enhancement of wetlands
- The determination of credits
- Credit releases
- Authorizations for the use of credits
- Public involvement in bank certifications
- The coordination of government agencies
- Determination of bank service areas
- Performance standards
- Long-term management, financial assurances and remediation for certified banks
- Local authority in the certification of banks
- Requirements that Ecology must ensure mitigation sequencing has occurred when the department authorizes the use of bank credits.

Creating a certification process was an important part of the legislation. Banking outside a certification process could yield:

- Wetland mitigation banks that would not replace the functions being lost
- Continuation of piecemeal mitigation projects that fail to address larger watershed needs
- Mitigation banks that operate under inconsistent regulation, creating unfair advantages where regulations are more lenient
- Greatly increased time required for agency approval
- Potential bank sponsors would minimize the marketability of bank credits to offset impacts only under local permits.

1.2.2 Objective of the Draft Rule

As directed by the legislature, Ecology has developed a draft rule to implement the law. The legislation emphasizes that the rule should provide a predictable and streamlined regulatory process. This is accomplished through a statewide wetland mitigation bank certification process. Through the certification process, Ecology, in consultation with the multi-agency Mitigation Bank Review Team, evaluates and approves banks using the rule as its guide.

The process also ensures that wetland banks are ecologically sound and desirable[12].

The draft rule contains two distinct areas of focus. The first addresses the procedural elements of the certification application and review process, including operational requirements for wetland mitigation banks and compliance procedures. These elements can be found in Parts III, V, VI and VII of the draft rule. The second area outlines the technical criteria for evaluating wetland mitigation bank proposals. Part IV includes lists of technical criteria for each of the key components of a wetland banking system:

- Site Selection
- Service Area
- Determination of Credits
- Credit Release Schedule
- Financial Assurances
- Monitoring and Performance Standards

The draft rule seeks to simplify the approval process for banks by articulating how Ecology will evaluate proposals.

1.3 The Rule Being Proposed to Guide Implementation of the Law

1.3.1. Development of the Draft Rule

RCW 90.84.030 requires that Ecology develop the rule "…through a collaborative process." To fulfill this requirement, Ecology chose to use a negotiated rule-making process. Negotiated is defined in the Administrative Procedure Act[13] as a process "by which representatives of an agency and of the interests that are affected by a subject of rule making, …seek to reach consensus on the terms of the proposed rule and on the process by which it is negotiated." (Department of Ecology June 1998). In the process used for this rule, consensus was defined as whether each stakeholder could "live with" the decision. Complete unanimity was not always possible, and in those cases, Ecology decided upon the rule language.
Ecology convened an Advisory Team and involved the general public to determine the contents of the rule. The role of Ecology, the 18-member Advisory Team and the public is described below. A list of the Advisory Team members is provided in Appendix A.

[12] See Wetland Mitigation banking focus sheet, Ecology publication #00-06-028.

Roles of Participants

Role of Ecology

Ecology's role was Advisory Team facilitator, rule writer and final decision-maker when consensus could not be reached by the rule development Advisory Team. As the facilitator, Ecology:

- Provided all of the logistical support for Advisory Team meetings.
- Collected technical materials on wetland mitigation banking.
- Assembled the Advisory Team, inviting representatives of the various stakeholder groups identified in the rule development plan.
- Produced technical papers for Advisory Team discussions outlining background material, alternatives and potential rule approaches for each of the topics discussed by the Advisory Team.
- Established the rule development schedule and schedule of topics for discussion by the Advisory Team.
- Produced and distributed summaries of Advisory Team meetings.
- Developed and maintained e-mail and postal mailing lists to keep team members and interested members of the public apprised of the rule development process and Advisory Team discussions.

Role of the Advisory Team

The Advisory Team played a pivotal role by adding the diverse viewpoints of a wide range of stakeholders. Stakeholders for wetland banking included local, state, and federal agencies, tribes, environmental interests, prospective private bank developers, agriculture and business representatives.

Team members met monthly for eighteen months beginning in December 1998 and ending in May 2000. Ecology sent each member a meeting packet one to two weeks prior to each Advisory Team meeting. The packet usually contained the meeting agenda, a draft summary of the previous meeting and briefing papers produced by Ecology on each of the topics scheduled for discussion by the Advisory Team. Using the materials provided as a starting point, the team discussed each topic and worked to identify key concerns and considerations for the rule during the first part of the negotiation process. The final three meetings of the team focused on reaching consensus for the rule content and, in some cases, precise rule language.

Role of the Public

The public helped to shape the draft rule. In the spirit of a "collaborative process," Ecology invited the public to attend each Advisory Team meeting and comment on the proceedings. Portions of each meeting were set aside to hear comments and suggestions from the audience. Discussions were often lively and audience members helped the Advisory Team by identifying potential alternatives, additional concerns not addressed by the team and suggesting potential solutions when the team was deadlocked.

Public Outreach

In addition to the members of the public who attended the Advisory Team meetings, Ecology gathered opinions and comments during separate meetings with various constituent groups. These meetings helped to broaden exposure to other viewpoints on wetland mitigation banking in the state. Ecology also solicited advice and feedback from the public through public workshops in eastern Washington during August 2000 and in western Washington during December of 2000.

Ecology maintained an e-mail distribution list for information and updates during rule development. Ecology maintained a mailing list for updates on the rule development process and frequently sent out mailings to those on the project mailing list during the Advisory Team process. Ecology received several letters and e-mail comments on the proposed rule during the rule development process.

After the draft rule is filed, Ecology will hold public hearings to obtain additional feedback from members of the public before the rule becomes law.

Coordination with Federal Agencies

Two federal agency representatives participated on the state's Advisory Team. The U.S. Army Corps of Engineers represented the federal wetland perspective, while the U.S. Fish and Wildlife Service addressed Endangered Species Act concerns.

Federal approval of state-certified banks should be easier to obtain because the draft rule is consistent with the *Federal Guidance* on mitigation banking. Being consistent with the *Federal Guidance* was a requirement in RCW 90.84.

Federal guidance on wetland banking is provided in the *Federal Guidance for the Establishment, Use and Operation of Mitigation Banks* (*Federal Guidance).*[14] The guidance was published in the Federal Register in 1995. It broadly outlines a process that the U.S. Army Corps of Engineers[15] uses for approving wetland mitigation banks. The bulk of the document focuses on policy guidance on the technical and administrative elements of wetland banks. The guidance addresses issues such as on-site mitigation versus the use of a wetland bank, integration of wetland banks with watershed planning, and in-kind versus out-of-kind compensatory mitigation.

Memorandum of Agreement

Ecology is developing a Memorandum of Agreement with federal agencies on the review and approval process for wetland mitigation banks in the state. The Memorandum of Agreement will minimize duplicative approval processes at the state and federal regulatory levels. The federal agencies involved in the Memorandum of Agreement include:

- U.S. Army Corps of Engineers[16]
- U.S. Environmental Protection Agency
- National Marine Fisheries Service (invited to participate)
- U.S. Fish & Wildlife Service

Under the draft agreement, the federal approval process for wetland mitigation banks will be joined with the state certification process for wetland mitigation banks. Bank sponsors will be able to obtain federal review and comment on their proposals at the same time as the project moves through the state certification process. The Mitigation Bank Review Team process outlined in the draft rule (and described later in this document) will suffice for the federal Mitigation Bank Review Team process described in the *Federal Guidance*. Bank sponsors will not need to work with two different Mitigation Bank Review Teams in order to obtain state certification and federal approval of their bank.

[14] Federal Register Vol. 60, No. 228, November 28, 1995. pp. 58605-58614
[15] Except for banks developed for Food Security Act (FSA) Swampbuster activities. In those cases, the National Resource Conservation Service is the lead federal agency.
[16] Except for banks established under Food Security Act, where National Resource Conservation Service is the lead federal agency.

1.3.2. Overview of the Rule--WAC 173-700

The rule, WAC 173-700, contains nine parts:

- **Part I** provides an overview of the wetland mitigation banking legislation (RCW 90.84) and articulates the intent of the draft rule.
- **Part II** covers definitions of terms used in the rule.
- **Part III** lays out the application and review process for certification.
- **Part IV** covers the technical requirements for establishing wetland mitigation banks.
- **Part V** sets the requirements for the operation of wetland mitigation banks, particularly for monitoring and credit tracking and reporting.
- **Part VI** provides guidance for the use of credits.
- **Part VII** outlines Ecology's compliance and enforcement procedures for certified banks.
- **Part VIII** states what each participant's roles and responsibilities are in the wetland bank certification process.
- **Part IX** covers the appeal process for certification decisions.

In the overview that follows, the discussion is broadly divided into three primary components:

- The certification process, including roles and responsibilities
- Technical requirements
- Compliance

More detail on these areas can be found in the discussion in Chapter 3.

The Certification Process

The proposed rule creates a certification process for reviewing and certifying mitigation banks. Certification is a negotiated process between the bank sponsor and the regulatory agencies with jurisdictional authority over bank construction and debit projects. Negotiations occur to formulate a bank instrument.[17] In addition to meeting the requirements stated in the proposed rule, the bank instrument "describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated."[18] For a bank to receive state certification, Ecology and the local jurisdiction in which the bank will be located each must approve the bank instrument.

The certification process relies on the formation of a Mitigation Bank Review Team. This is a twelve-member team composed of local, state, federal and tribal agencies with a jurisdictional interest in the bank site.[19] A Mitigation Bank Review Team will be formed for each bank that is proposed. In the future, if sufficient demand for bank certifications exists, Ecology may form a statewide Mitigation Bank Review Team. A statewide Team would have designated points of contact for each agency represented on the Team. It would meet on a monthly or quarterly basis to review wetland bank proposals.

The purpose of the Mitigation Bank Review Team is to coordinate the review of mitigation bank proposals to avoid duplicative approval processes. Because so many different agencies may have approval authority over debit projects, it is important to gain as much consensus on the bank instrument as possible. The Mitigation Bank Review Team will work with Ecology and the bank sponsor regarding specifics of each bank proposal. Ecology will make final determinations on the state certification.

If Ecology decides to approve a wetland bank for certification, it notifies the local jurisdiction where the bank is located. The local jurisdiction must determine whether or not to concur with Ecology's decision to certify the bank. If the local jurisdiction decides not to concur with Ecology's decision, Ecology cannot certify the wetland mitigation bank [RCW 90.84.040(1)]. If the local jurisdiction concurs, it indicates approval of the certification through a signature on the bank instrument. Other agencies (such as the federal regulatory agencies) are invited, but not required, to sign the bank instrument. It is in the best interest of the sponsor to obtain as many signatures as possible on the bank

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[17] The bank instrument is essentially the legal contract between Ecology and the bank sponsor on how the bank will be established and operated.
[18] Draft rule WAC 173-700-100.
[19] Entities typically invited to participate on an Mitigation Bank Review Team include the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Natural Resources Conservation Service, Tribes, Washington Department of Fish and Wildlife, the local jurisdiction where the bank is located and other interested local jurisdictions located within the bank's proposed service area. See WAC 173-700-732.

instrument (*Federal Guidance)*. Signing a bank instrument indicates that the agency or entity agrees with the terms of the instrument and certification.

Technical Criteria

The draft rule contains a section (Part IV) that outlines the technical criteria used by Ecology and the Mitigation Bank Review Team to evaluate wetland mitigation bank proposals. The purpose of Part IV is to allow for a transparent decision-making process. Applicants should be able to identify the key elements from the rule that will be evaluated and design their proposal to address these elements. This should result in some streamlining of the process since applicants will be able to know what is expected prior to entering the certification process.

The rule also contains a section that emphasizes the integration of wetland mitigation banks with landscape-based watershed management plans (WAC 173-700-030). The rule includes several incentives for bank sponsors (certification applicants) to site and design a wetland mitigation bank where it will provide regionally significant benefits (WAC 173-700-300).

Compliance

Part VII of the draft rule outlines the compliance process that Ecology will use to ensure that wetland mitigation banks comply with the terms of their certification. The compliance section provides clear direction to Ecology to ensure that the interests of the public are protected and the protection of wetland resources is achieved. The compliance process is described in more detail in chapter 3.3.5.

2.0 The Effects of Mitigation Banking

This chapter identifies some of the weaknesses and strengths of wetland mitigation banking. It begins with the potential adverse effects of wetland banking on a programmatic level and concludes with a discussion of some of the environmental benefits that can be achieved with banking.

2.1 Concerns Regarding the Environmental Effects of Wetland Banking

2.1.1 Increased Wetland Impacts

One of the most prevalent concerns about wetland mitigation banking is that it will be used to justify avoidable impacts to wetlands thereby resulting in more wetland losses. This concern stems from the belief that if bank credits are available, regulators will jump to compensation or replacement of wetlands without requiring applicants to go through the initial sequence of mitigation: avoidance and minimization. Another concern is that wetland losses could increase because of pressure on agencies to use credits from a bank that is experiencing financial difficulties due to lack of demand for their credits.

Likely effects with the rule

Requirements to apply mitigation sequencing and avoid and minimize wetland impacts may reduce the degree of wetland loss, however, losses of wetlands will continue to occur as a result of unavoidable impacts from growth and development. Impacts to wetlands are anticipated to occur whether or not a wetland mitigation bank exists in an area.

The presence of a wetland mitigation bank does not relieve an applicant of the requirement to first avoid and minimize impacts to wetlands. Use of credits from a mitigation bank is not considered until the compensation phase of a project's mitigation sequencing is reached.

On the state and federal levels, the use of mitigation sequencing – avoid first, then minimize and finally compensate for unavoidable impacts – is applied to all projects. On a local level, however, mitigation sequencing is not always rigorously enforced either by rule or implementation. As Race noted (1996), land use decisions and the political weight of private property rights issues often influence local permitting decisions. Many local ordinances provide exemptions for impacts to very small wetlands or for impacts from single-family dwellings.

Accordingly, some local jurisdictions may choose to bypass avoidance and minimization requirements and go directly to compensating with bank credits. The draft rule includes some safeguards to minimize this potential, however, it should be noted that these are not entirely foolproof and the use of banks for impacts that are avoidable is possible. The proposed rule states that bank credits may be used for "unavoidable" impacts to wetlands. The rule further defines "unavoidable' as follows: "Unavoidable means adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved" (WAC 173-700-100).

In WAC 173-700-750(1), the draft rule directs that permitting agencies "should document that mitigation sequencing has occurred before approving the use of banking credits to compensate for unavoidable impacts." It goes on to state in subsection (2) of 173-700-750 that the purpose of the documentation is to assure that the intent of the authorizing statute is met. This intent is outlined in the RCW 90.84.040(2) which states that state agencies and local governments may approve the use of bank credits for any <u>mitigation</u> required under a permit issued or approved by that agency to compensate for the proposed impacts of a specific public or private project. Mitigation is further defined in the RCW 90.84.010(6) as "sequentially avoiding impacts, minimizing impacts and compensating for remaining unavoidable impacts." The requirement to document mitigation sequencing will help keep agencies accountable by requiring that they support in writing the decision to allow impacts. Other agencies and local citizens can then follow up if sequencing is routinely being bypassed.

2.1.2 Wetland Resource Tradeoffs

Wetland tradeoffs can happen when compensation occurs off-site or out-of-kind, since the same wetland resources are not replaced. This section discusses the potential effects of off-site compensation and out-of-kind compensation from wetland impacts on a programmatic basis, and the likely effects of banking under the rule.

Off-site mitigation means that the replacement wetlands are not provided on or near to the project affecting wetlands. Off-site mitigation is often only allowed if mitigation on the project site is not practicable or if it is environmentally preferable to on-site compensation (Ecology et al. 2001).

Out-of-kind mitigation means that the compensatory wetlands and the associated functions provided are of a different kind than those that were lost. Out-of-kind mitigation is a fairly common practice, for example, when the affected wetlands are highly degraded (e.g., wet pastures dominated by exotic species), they may be replaced by a native scrub-shrub wetland.

Before discussing the effects of mitigation banking, it is important to look at the current trends in the types[20] and distribution of wetlands in the landscape. The loss of wetlands will continue regardless of the introduction of mitigation banks. Recent census figures show that some areas of the state are experiencing growth rates in excess of 30 percent (Olympian 2000). The development of land to meet those growth rates will continue to result in the loss of wetlands.

Off-site Compensation

Distribution of wetlands

The use of wetland mitigation banks could result in a relocation of wetlands particularly from areas of rapid growth and urbanization to more rural areas. Mitigation banks in Florida have resulted in a transfer of wetland resources from the highly urbanized areas to less densely populated rural areas (King 1997). Land in urban areas is more valuable for development than as wetlands. Land in rural areas in less costly and in lower demand.

The potential effects of a relocation of wetlands to more rural areas include:

- Net loss of wetlands in urban sub-basins and net gains in rural areas.
- Alterations of hydrologic patterns.
- The loss of aesthetic values, recreation opportunities for urban dwellers and open space areas.
- Small wetlands replaced by credits generated from large wetland systems.

The use of wetland banks could also result in wetlands in one sub-basin being replaced in a different sub-basin in the same watershed, since most wetland banks are anticipated to have service areas that cover several sub-basins. As a result, some sub-basins within a bank's service area could have net losses while others would experience net gains in wetland area.

The tendency to lose wetland areas may be especially true in designated urban growth areas. Space is at a premium in urban areas and land costs can be prohibitive for on-site mitigation. Bank credits, therefore, may be used more frequently than concurrent mitigation in these areas.

[20] Types of wetland can include Cowardin types such as palustrine forested, shrub or emergent wetlands, and also include hydrogeomorphic types of wetlands such as depressional or riverine wetlands.

There is a special risk in regard to the loss of small wetlands. Small wetlands may not be replaced by other small wetlands, but may instead be replaced by credits generated from large wetland systems often used in mitigation banks. Small wetlands may, therefore, become fewer in number. It should be noted, though, that mitigation banks do not have to consist of large wetland systems. A complex of small wetlands and their adjacent upland areas can comprise a wetland mitigation bank.

There can be significant impacts to the landscape as a result of the loss of small wetlands. Collectively, wetlands can provide significant hydrologic functions such as reducing downstream erosion, reducing peak flows, and recharging groundwater (Loukes 1990, Leschine et al. 1997).

These wetlands can provide vital habitat for native amphibians (Richter 1996) and serve as habitat islands for birds and urban wildlife. Small wetlands can also provide residents in urban areas with recreational opportunities. Natural areas are considerably more socially valuable when located within developed areas (King 1997a).

Existing Conditions

Many of the policies on compensatory wetland mitigation emphasize on-site replacement of wetland losses. This has resulted in many wetland mitigation sites being constructed on sites that do not naturally contain the conditions necessary to support wetlands. Mitigation needs drive the design of the compensation rather than the site's conditions driving the wetland design. The requirements for wetland areas have resulted in wetland mitigation site designs that ensure the establishment of wetlands by emphasizing open water areas ringed by vegetation (Kentula et al. 1992).

While the majority of wetland mitigation does occur on or near the site of the project (Mockler et al. 1998) affecting wetlands, much of the mitigation does not provide adequate compensation for, or replace functions lost (Johnson et al. 2001, National Academies of Sciences 2001). On-site mitigation has resulted in wetland sites that are often referred to as "postage stamp" mitigation. These mitigation sites are often isolated from other natural areas and wetlands due to roads, commercial and residential development. Their isolation from native seed sources and wildlife populations could affect their ability to recolonize after catastrophic disturbances.

A problem associated with on-site mitigation in urban and developing areas is the increased nature and frequency of human disturbances and inputs of toxins and pollutants. Many on-site mitigation sites serve as sinks for trash and waterborne contaminants washing off of surrounding impervious surfaces. These sites are often located within urbanizing areas and are degraded along with remaining remnant wetlands due to hydrologic regime alterations and inputs of contaminants, excess nutrients and disturbances (Booth 2000, Azous and Horner 1997). Increases in impervious surfaces and reductions in infiltration and storage capacity in the upper parts of basins result in widely fluctuating hydrologic regimes and decreased plant and animal diversity. A smaller number of species that are able to tolerate wide changes in depth and duration of inundation tend to replace the native diverse species in these communities. (Azous and Horner 1997).

While much of the emphasis has been for on-site mitigation, off-site mitigation is also used for concurrent mitigation. This use of off-site mitigation and the habitat fragmentation resulting from wetland alterations has resulted in a redistribution of wetland systems at the landscape scale (Gwin et al. 1999, Kelly 2001).

Distribution And Location Of Wetland Functions

The use of banks will, by nature, result in the relocation on the landscape of some wetland functions. Whether or not that change is desirable or harmful depends upon the relationship of human populations to the resultant effects in the donor basin and the receiving basin (King 1997b).

In a paper discussing a method for evaluating wetland tradeoff decisions within a landscape context for making sustainable watersheds, King noted:

> "The landscape context affects different functions and values in different ways. For example, fish and wildlife spawning, breeding, and feeding habitats are provided best by wetlands that are surrounded by healthy ecological landscapes and are relatively inaccessible to humans. Other functions, such as sediment and nutrient trapping, generate more benefits if the wetland is closer to disturbed landscapes where sediment, nutrient, and storm water runoff are a problem. Similarly, certain wetland benefits (such as aesthetics, scientific research, education, and flood protection) require that people reside in nearby proximity to the wetlands, while others (such as endangered species habitat) require the opposite condition." (King 1997b)

If a function such as reduction of peak flows or reduction of downstream erosion is lost in one basin and replaced in another, the donor basin would experience effects from increased flooding and scour and those effects would not be offset by less flooding in a different basin. The exchange would not be desirable in the donor basin where increased flooding (from the loss of water quantity functions) would affect populated areas and infrastructures. Alternatively, it may be acceptable to relocate the water quantity functions off-site if, for instance, there weren't any population centers downstream of where the loss of function occurred and the downstream basin area had sufficient floodplain area available.

Likely effects with rule

As noted above, the use of wetland mitigation banks can result in the relocation of both wetland types and functions on the landscape since banks provide off-site mitigation.

Under the rule, adverse impacts from the relocation of wetlands and their functions on the landscape will be minimized in two ways. First, the service area of a bank will be based upon the functions provided at the bank and the distance from the bank where impacts can be adequately offset. Second, when debit projects propose to use bank credits, the permitting authority determines whether the use of credits is appropriate. The regulating agency first determines whether to allow off-site mitigation. If it is determined that off-site mitigation is acceptable or desirable, the permitting agency will decide whether the bank provides the appropriate functions to replace those functions lost. If the bank is not appropriate for replacing the necessary functions, then its use is not likely to be authorized. This decision is made on a case-by-case basis, taking into consideration the functions and landscape relationships of the bank's wetlands versus the unavoidable impacts of the debit projects.

Under the banking rule, it is anticipated that many of the impacts to functions that are linked to landscape position, such as hydrologic functions and fish habitat, will be mitigated on or near the development site since they cannot be adequately mitigated for elsewhere. Because hydrologic functions are dependent on landscape position (National Cooperative Highway Research Project 1996, Bedford 1996), the use of a bank to compensate for water quality and quantity impacts will not be appropriate unless the bank is located close enough and downstream from the proposed impact area. Often, alterations in water quantity and quality are addressed on-site through structural compensations such as storm water detention and treatment facilities so that changes in the timing and volume of surface runoff due to increased impervious surfaces are taken care of.

The wild salmonid policy (Washington Fish and Wildlife Commission 1997) requires that impacts to fish habitat must be mitigated on or near the impact site because of the landscape dependency of the habitat. If on-site mitigation is not practicable and off-site mitigation must be used, the compensatory mitigation must be on the same stream reach (Washington Fish and Wildlife Commission 1997, Ecology et al. 2000).

However, other functions provided by the affected wetlands may be adequately replaced farther off-site. General habitat functions may be more significant and sustainable on a landscape level if they are replaced in an area with sufficient buffering, connectivity for dispersal and size to support a variety of niches and species rather than being squeezed into isolated openings in an urban and suburban landscape (Diamond 1975). The use of bank credits could be acceptable for replacing functions that would be more beneficial off-site, such as wildlife habitat and maintenance of biologic diversity (King 1997a).

Adverse effects from off-site compensation can be minimized and the benefits maximized if compensatory mitigation decisions are made in consideration of the watershed or landscape context rather than at the site-specific level (Race and Fonesca 1996, Scodari and Shabman 2001). The rule supports the use of watershed-scale information in the location and design of wetland banks. The National Academy of Sciences study on compensatory wetland mitigation (2001) supports the use of off-site mitigation when appropriate and concludes "watershed goals may often best be served by placing compensatory wetlands off-site."

The study also recommends that:

> "Site selection for wetland conservation and mitigation should be conducted on a watershed scale in order to maintain wetland diversity, connectivity, and appropriate proportions of upland and wetland systems needed to enhance the long-term stability of the wetland and riparian systems. Regional watershed evaluation should greatly enhance the protection of wetlands and/or the creation of wetland corridors that mimic natural distributions of wetlands in the landscape." (National Academy of Sciences 2001)

Out-of-Kind Compensation

There are several types of out-of-kind trades that could occur with wetland mitigation banking. Exchanges which could occur include:

- Exchanges in wetland functions when bank credits are used which are not the same as the functions lost.
- Compensation of impacts to wetlands with credits generated by upland portions of bank sites.
- Potential net losses in area when credits generated by preservation areas are used to compensate for direct wetland losses (Brown and Lant 1999).
- Shifts in the distribution of wetlands when impacts to small wetlands are replaced with larger wetland systems.
- Conversions of freshwater, emergent wetlands to estuarine or forested wetland system.

Whether exchanges of type and functions of wetlands are ecologically appropriate will depend upon the context in which the exchange occurs. When impacts occur to a highly degraded and altered wetland, compensatory mitigation is often designed to provide higher-quality wetlands rather than to exactly replace those lost. These are out-of-kind tradeoffs. The state's Alternative Mitigation Policy (Ecology et al. 2000) specifically addresses out-of-kind mitigation and states that such mitigation is acceptable when it will provide an overall net gain for the resources of the watershed.

Existing Conditions

The traditional regulatory preference for compensatory wetland mitigation focuses on in-kind and on-site wetland replacement. In-kind has been generally construed as meaning of the same Cowardin class, e.g., palustrine forested wetland, estuarine and riverine wetlands. The preference for in-kind mitigation is based on the assumption that similar wetland types provide similar functions.

While the goal of compensatory mitigation is generally to replace wetland function and area (National Academy of Sciences 2001), biologists rarely have the time or resources to directly measure the degree to which a specific wetland performs individual functions. When determining wetland impacts and compensation requirements, wetland biologists qualitatively assess a wetland's performance using best professional judgement. By developing sites that provide the same (or often greater) area and wetland type, it has been assumed that the mitigation provides similar functions as those lost.

While the rate of wetland losses has declined significantly from the 1970s (Dahl 2000), wetlands continue to be lost from filling and draining activities associated with urbanization, agriculture and silviculture. Trends show increases in the area and distribution of some wetland types, such as open water ponds and shrub wetlands (Dahl 2000, Gwin et al. 1999, Johnson et al. 2001). There continue to be declines in forested (Dahl 2000) and emergent wetlands due to direct impacts and conversions to other wetland types (Johnson et al. 2001).

Studies in Washington (Johnson et al. 2001), Oregon (Gwin et al. 1999) and elsewhere (Bedford 1996) have shown that compensatory wetland mitigation has not resulted in replacement of similar wetland types. Presumably, functions have not been replaced as well. In many cases, created wetlands contain morphology, vegetative communities and hydrologic regimes that do not exist naturally in the landscape. The overall effect of concurrent mitigation has been the gradual replacement of naturally occurring wetland types with more simplified, less diverse and in some cases, atypical wetland types (Gwin et al. 1999). The policy has resulted in a distinct increase in open water wetland types, as well as atypical wetlands (those that do not occur naturally within hydrogeomorphic subclasses) (Gwin et al. 1999, Bedford 1996). The effects of this reconfiguration of the types and spatial distribution of wetlands include losses in the performance of some functions, loss of biodiversity and altered hydrologic patterns (Bedford 1996, Kentula et al. 1992).

Potential out-of-kind tradeoffs

Mitigation banking may change the types of wetlands that persist in the landscape and the functions they provide.

Some banks may include a variety of wetland types while other banks may focus on a single wetland type. Because the precise impacts to wetlands that will use the bank are not known, some wetland types may be exchanged during the use of the bank. This is particularly true if the regulating agency(ies) allows the use of credits from a bank that provides different functions or different wetland types than those that were lost.

In situations where credits are not allowed for upland areas within a bank, replication of a naturally occurring mosaic of wetlands and uplands may be less likely in mitigation banks. These wetland and upland mosaics may be ecologically significant ecosystems for a particular area. Economic considerations, however, would tend to drive bank design to maximize the wetland area that generates marketable credits. A sponsor may, therefore, maximize the creation of wetlands at the bank site, eliminating the use of uplands as part of a wetland/upland mosaic. Maximizing the wetland area at a bank site may result in more large wetland systems and fewer mosaics of wetlands and uplands. The rule allows upland areas within a bank to generate credits if these areas contribute to the ecological functions performed by the wetlands in the bank. While the use of credits from such a bank to mitigate for impacts to wetlands could result in a net loss of wetland area, the benefits gained would include the establishment of a sustainable wetland ecosystem which is representative of the landscape profile of wetlands in the watershed (Bedford 1996). In areas where local regulations under the Growth Management Act or Shoreline Management Act require compensation for impacts to wetland buffers or upland habitats[21], net losses of wetlands would be reduced if bank credits from a mosaic bank are used to compensate for upland impacts as well as wetland impacts.

It should be noted that in the absence of wetland banks, mosaics continue to disappear when on-site mitigation areas are surrounded by pavement, roads and other development.

Out-of-kind trades may also occur when preservation of high-quality wetland systems generates credits in a bank. The state's Alternative Mitigation Policy allows the use of preservation as compensation when the impacts are small and are occurring to low-functioning wetland systems. The state views wetland preservation as a viable mitigation strategy for several reasons:

- Wetland creation and restoration have not fully been able to mimic naturally occurring systems (Kusler and Kentula 1990)

[21] For example, Pacific, Pierce and King counties' regulations require mitigation for buffer areas around wetlands.

- Even with wetland regulations aimed at protecting wetlands and avoiding impacts, unavoidable wetland losses continue to occur (National Academy of Sciences 2001)

- Habitat fragmentation and disruptions to watershed processes are resulting in cumulative degradation of watershed health and functioning (National Research Council 1996)

- Preserving the remaining high quality wetland systems in a watershed provides the greatest long-term benefits for the watershed (Washington Department of Transportation 1999).

A potential downside of banking is that in order in maximize potential profits from a bank, sponsors will be enticed to create easily mimicked wetland systems rather than developing more complex wetland systems. For instance, some wetland types have been easier to recreate than others (Kusler and Kentula 1990, National Academy of Sciences 2001). Estuarine marshes have been relatively easy to replace, while forested wetlands and groundwater-driven wetland systems are successfully developed less frequently. Some systems such as bogs and fens may not be reproducible at all because of the complex physical and chemical processes that define these systems (Ecology 1993, National Academy of Sciences 2001). Sponsors will want to minimize their risks by developing banks where the proposed mitigation activities (e.g., restoration, creation and enhancement) have a high likelihood of success. Hence, sponsors are unlikely to develop banks which depend upon the development of a bog system and instead may opt to breach a dike to restore tidal marshes.

Likely effects with rule

Clear rules on the use of bank credits in the bank instrument should reduce the potential for losses in specific functions and types of wetlands in a watershed. The draft rule specifies that each bank instrument should include guidance on the appropriate use of its credits. Generally, banks that do not provide functions similar to those that are lost in a watershed are not likely to see their credits approved for use as compensation. Thus, bank sponsors will want to develop banks that will provide adequate function exchange in order to minimize their risk of financial losses.

"Ultimately, the risks and costs of mitigation banking should limit effectively its application to those situations in which banking will

> (1) Contribute to a broad-based ecosystem restoration project that has a high probability of producing significant net environmental benefits and

(2) Provide for some meaningful replacement of wetland functions and values lost due to the cumulative adverse effects of many small-scale wetland losses." (Goldman-Carter and McCallie 1996)

The failures of existing compensatory wetland mitigation projects to replace function and area (National Academy of Sciences 2001, Johnson et al. 2001) are already resulting in tradeoffs in wetland functions. The recent Phase 2 of the Mitigation Evaluation Study (Johnson et al. 2001) shows that existing on-site mitigation is resulting in some replacement of water quality and quantity functions, but is failing to replace habitat losses. Wetland mitigation banks can be used to offset wildlife habitat losses and result in sites that are more connected with other natural areas, migration corridors and other wetland habitats. Additionally, wetland banking provides a context for making conscious decisions on tradeoffs of functions rather than unplanned tradeoffs that occur now.

Finally, one of the goals of the state's wetland banking program is the development of ecologically sustainable aquatic ecosystems. To that end, the rule provides various incentives for banks to be located and designed from a landscape perspective. It encourages bank sponsors to restore watershed processes and prioritizes the use of restoration of wetlands over other mitigation activities. More sustainable compensatory wetland mitigation will assure that future net losses won't occur from failed or degraded mitigation sites.

2.1.3 Large-Scale Failures

Concerns have been raised that because wetland banks are generally larger wetland mitigation sites, their failure will result in greater losses of wetland resources.

Wetlands are complex systems (Mitsch and Gosselink 1993). Though we increase our knowledge of how wetland ecosystems function and refine our restoration techniques, sites do not always turn out as anticipated (Simentad and Thom 1996, Zedler and Callaway 1999). The number of variables involved in the development of a site increases the potential that the site will fail to attain the planned communities and/or functions.

Existing conditions

As noted in the previous section, Washington's success rate for compensatory wetland mitigation has been less than stellar. The Phase 2 Mitigation Evaluation Study conducted by Ecology showed an overall success rate of only 33 percent for the 24 sites reviewed (Johnson et al. 2001).

Many of the same factors that result in failures of project-specific mitigation sites could apply to wetland mitigation banks. Technical problems of mitigation sites include inappropriate hydrology; inadequate or incorrect baseline information on hydrology, soils and elevations; invasive species and unenforceable performance standards (Marble and Riva 2001). Administrative problems include lack of follow-through by agencies, lack of contingency plans or actions, and lack of monitoring requirements (Storm and Stellini 1994).

Likely effects of rule

Since wetland banks generally include larger wetland areas and types of wetlands, when a bank fails, the potential losses in wetland resources could be greater. However, the way wetland mitigation banking and the regulatory review of banks is practiced minimizes the potential for bank failures. Wetland banking has been relatively successful. While there have been several bank "failures" where the banks have failed to meet expectations or achieve the correct type and amount of wetland area, there has been minimal net loss of wetland area (Tabatabai and Brumbaugh 1998). Minimal losses occurred because:

- Few banks allowed complete up-front debiting of credits.
- Contingency actions were implemented to improve the bank's success.
- Debiting was deferred until ecological gains were realized.
- The entire bank site was permanently protected even when only part of the bank was able to be debited.

Banks may involve greater acreage of wetland mitigation, however, the built-in mechanisms to ensure success should reduce the level of net loss of wetland area and function compared to current mitigation practices.

Wetland banks in Washington are unlikely to result in large-scale failures and are more likely to have much higher success rates than concurrent mitigation for several reasons:

- Banks have early and detailed technical review by multiple agencies with diverse technical expertise.
- Banks generally have greater amounts of baseline information available.
- Bank sponsors have economic incentives to ensure site success.
- The draft rule includes several risk management mechanisms such as financial assurances, phased credit release and monitoring requirements.

Wetland mitigation banks under the draft rule undergo early technical review by the multi-agency Mitigation Bank Review Team. The team generally includes at least six agencies encompassing a range of technical expertise. The team reviews the site selection rationale for a bank as well as the technical feasibility of the design proposed for the bank. This level of review far exceeds what is normally provided for all but the largest projects with significant wetland impacts.

The proposed certification process requires higher levels of baseline information on the proposed bank site and its suitability as a wetland mitigation site from bank sponsors than is usually provided for project-specific, concurrent mitigation. Since bank credits are generated by net gains in wetland functions, banks that include enhancement must have detailed information on existing site conditions and an assessment of the potential level of functions already being performed on the site. Only the net ecological benefit or "lift" resulting from the enhancement activities generates credits.

Ecology can release bank credits for use when the proposed bank meets specific performance standards. Under the draft rule, credits are not released until success is shown through the attainment of performance standards. If a bank site is not successful, its credits will not be released and hence cannot be used as compensatory mitigation for unavoidable impacts to other wetlands. This requirement for success prior to release of credits minimizes the risk of failed mitigation. Thus, the use of banks should result in lower losses of wetland from unsuccessful mitigation as compared to concurrent mitigation. The Phase 2 Mitigation Evaluation Study for Washington showed that only one-third of the existing compensatory mitigation projects studied were successfully replacing the impacts they were intended to mitigate (Johnson et al. 2001).

Since a sponsor cannot obtain credit releases without the site successfully attaining its required standards, a bank sponsor has a vested interest to closely follow the development of the site and apply contingency actions when necessary. An example of this occurred at a bank located in Snohomish County where monitoring showed problems with water levels in one of the sites. The sponsor corrected the problem with the water control structure on the site in order to protect its investment for future mitigation.

Finally, the draft rule contains several risk management techniques to minimize the potential for site failures and losses of wetlands. While the phasing of the release of credits is one of the most effective of these, the use of financial assurances, detailed site monitoring and compliance oversight by Ecology also serve to reduce the potential that banks will fail.

The presence of all of these factors contributes to lowering the chance of bank failure and should result in banks that are more successful than existing mitigation sites. The Institute of Water Resources report of bank program status concluded that wetland losses from failures of banks has been minimized because, of the bank's total projected credits, only a portion of them were released up front. Also the bank sponsors either performed adaptive management activities to correct deficiencies or the total number of credits generated at the bank was adjusted to account for the reduced performance of the banks (Tababatai and Brumbaugh 1998).

2.2 Beneficial Effects of Wetland Banking

Mitigation banking can help local and state agencies achieve more of a balance between the protection and restoration of important areas for watershed functioning and economic development. Banks can help provide the replacement of wetland functions and habitats lost to development in a more holistic manner from a landscape-level perspective.

Mitigation banking creates an economic incentive for the restoration and stewardship of wetlands. Local governments can use banking as a management tool for addressing cumulative impacts from future development plans. The legislature recognized some of the promise of wetland mitigation banks in RCW 90.84.005. This section describes some of the benefits of mitigation banks, which include:

(a) The maintenance of the ecological functioning of a watershed by consolidating compensatory mitigation into a single large parcel rather than smaller individual parcels;

(b) An increased potential for the establishment and long-term management of successful mitigation by bringing together financial resources, planning and scientific expertise not practicable for many project-specific mitigation proposals;

(c) Increased certainty over the success of mitigation and reduction of temporal losses of wetlands since mitigation banks are typically implemented and functioning in advance of project impacts; and

(d) The potential for enhanced protection and preservation of the state's highest value and highest functioning wetlands.

2.2.1. Benefits for Watershed Restoration

Recently, the value of compensatory mitigation to maintaining and restoring watershed health has come to the forefront of policy and regulatory discussions (Scodari and Shabman 2001, Kentula 2000, King 1997b).

The *Federal Guidance* (1995) specifically calls out the connection between wetland banking and watershed planning:

> "Mitigation banks should be planned and developed to address the specific resource needs of a particular watershed. Furthermore, decisions regarding the location, type of wetlands and/or other aquatic resources to be established, and proposed uses of a mitigation bank are most appropriately made within the context of a comprehensive watershed plan." (p. 58609)

The larger scale of wetland mitigation banking and its potential for landscape level evaluation of wetland replacement allows consideration of processes that operate at the watershed landscape scale during the bank site selection and design stages (National Academy of Sciences 2001). Wetland mitigation banks can provide watershed ecosystem support through providing functions that are limited within a watershed or by restoring watershed processes. Watershed processes include the delivery and routing of water, nutrients, large woody debris, heat and sediments (Gersib et al. 1998).[22]

Existing conditions

Land-use changes significantly affect the types and distribution of ecosystems and ecological processes within watersheds. Despite the landscape-level significance of land-use decisions, larger ecological-process considerations are rarely included in land-use planning decisions (Dale et al. 2000). While ecological processes occur over the private and public landscape, resource decisions, particularly wetland management decisions, are made at the site scale. Individual decision-making focused on the site level often conflicts with the landscape approach to resource management (Race and Fonseca 1996).

One of the purposes of land use planning is to protect public values, reduce harm and ensure orderly timing of development and associated services (Dale et al. 2000). Until recently, with the advent of watershed planning and the listing of endangered salmon in Washington, ecological principles have rarely been included in land-use decision-making. Watershed planning provides part of the basis for identifying areas and processes that are significant from a larger perspective in order to provide an appropriate context for making site specific decisions.

Compensatory mitigation, as it has been practiced, relies more upon opportunistic development of compensation sites rather than focusing the site selection and design of mitigation sites in the larger context of watershed functioning and restoration. The emphasis for concurrent mitigation has been on attempting to replace functions and area at the site level, often ignoring considerations of whether or not the compensation will provide ecologically significant benefits to the larger landscape. Compensation sites have been selected based on their availability and proximity to impact areas.

Watershed planning efforts may identify and prioritize restoration sites based on the identified needs in a watershed and the degree of ecological contribution that can be achieved on the sites. However, these sites may not be available for restoration or use as compensation sites. The small size of required compensation (generally < 2 acres) often does not provide sufficient incentive for applicants to

[22] For example, over bank flooding is a natural process for western Washington where water is delivered on a semi-regular basis to large floodplain areas in the lower reaches of a watershed.

obtain and restore sites that are identified as priority sites for watershed restoration.

Additionally, while watershed plans may identify priority sites necessary for restoring watershed functioning and health, the funding to complete restoration actions (including acquisition and construction activities) is limited and local jurisdictions lack sufficient funds to implement priority watershed restoration activities.

Wetland mitigation banking can provide one mechanism to achieve ecological watershed goals and priorities.

Likely effects under the rule

Wetland banking provides an opportunity to focus compensatory mitigation in areas that contribute to watershed function and health. Through incentives such as credit determination, service area and credit release, the proposed rule emphasizes that wetland banks should be integrated with watershed management plans.

Wetland mitigation banking can complement watershed planning in two ways:

- Through providing a mechanism for implementing restoration activities on priority sites in the watershed. Watershed plans are often developed to address either the restoration of watershed processes and resources that have been degraded over time, or they are developed to guide future development in an environmentally sound manner. In many cases, the funding and resources to implement watershed priorities are not available.

- Banks can be used to direct the replacement of wetland losses (e.g., compensatory mitigation) to priority sites where the replacement wetlands will contribute to the overall health of the watershed.

Ongoing efforts in watershed planning could benefit from the establishment of a wetland mitigation bank on priority restoration sites which may have land costs or land ownership issues that preclude non-regulatory restoration activities.

Wetland mitigation banks that are developed within the context of watershed planning will have their risks reduced through several mechanisms:

- Site selection will be based on landscape perspective and will most likely include restoration elements.
- Greater amounts of baseline data are often available in watershed planning areas.
- Disruptions to watershed processes may be identified.
- Limiting functions in the watershed may be identified.

- Watershed plans may include or reference comprehensive land-use plans that identify the types and locations of wetlands that are likely to be affected by future development.

By being able to predict what types of wetlands and their associated functions are likely to be lost in a developing watershed, the bank sponsors can site and design their banks to meet anticipated market needs. Sponsors can be more confident that agencies will allow use of their banks because the location and design of it provides ecological benefits which are important within the watershed.

2.2.2 Sustainable Wetland Systems

When sustainability is used in the context of wetlands, it usually refers to a wetland's ability to persist on the landscape without loss or decline, its ability to continue to provide functions and its ability to rebound from episodic disturbances (Dale et al. 2000). When compensatory mitigation sites are unsuccessful and cease to perform functions for which they were designed, net losses of wetland area and function will occur.

Ensuring that sites are sustainable requires that the processes and systems of the surrounding watershed or ecosystem are considered during site location and design. Wetland banks lend themselves to consideration of factors affecting sustainability more so than individual small mitigation sites since banks tend to be larger than individual mitigation sites and can be designed in the watershed landscape context.

Existing conditions

Most compensatory wetland mitigation is done on an individual project level. The mitigation is done in a piecemeal fashion on an opportunistic basis. Rarely do individual mitigation project proponents spend the extra money and time to select mitigation sites based on their ecological values to the larger watershed. Sites are selected which are available for purchase (or already owned by the developer) and which are the most cost-effective for producing the required compensatory mitigation. Aside from requirements to permanently protect the compensatory mitigation site, the long-term sustainability of the mitigation site is only superficially addressed during the permitting process.

As a result, a large majority of mitigation sites are located in highly developed areas, adjacent to developments. As studies in King County (Azous et al. 1997) showed, wetlands in urbanizing areas are adversely affected by changes in the hydrologic regime of an area. Many small, depressional wetlands in urbanizing areas will be adversely affected since they are often low spots in the landscape and storm water runoff will accumulate in them. When this occurs, the hydrologic regime becomes more extreme in depth fluctuations and the resultant hydrologic regime of the wetland becomes flashier with rapid increases and decreases in the depth and volume of water in the wetland. Vegetation communities respond to these hydrologic changes by becoming less diverse and the habitat suitability of the site is significantly reduced (Azous and Horner 1997).

Additionally, the isolation of many individual mitigation sites hinders their ability to recover from catastrophic events. If disease or another natural disturbance process (e.g., fire, flood) occurs at a mitigation site, its connectivity to other natural areas and populations is critical to whether or not the site will re-colonize or not. When sites are isolated from other habitat areas, their ability to rebound from population crashes is limited by the lack of connectivity to other populations (Diamond 1975). This occurs when other populations are either too far away to re-colonize the site or if they are blocked from accessing the site.

Likely effects under the rule

Certified wetland mitigation banks are anticipated to result in sustainable wetland ecosystems because of:

- The emphasis on using a broader landscape perspective when selecting suitable bank site locations.
- The prioritized use of restoration which reduces the degree of human manipulation necessary to establish wetland conditions.
- The larger size of compensatory wetland banks which is more conducive for performing restoration activities.
- The larger size of the compensatory mitigation which provides an economy of scale for collecting and analyzing watershed information to guide decision-making on site selection and design that is not feasible with small on-site mitigation projects.
- The integration of wetland mitigation banks with watershed and land-use planning.

One of the goals of the state's wetland banking program is the development of ecologically sustainable aquatic ecosystems. To that end, the rule provides various incentives for banks to be located and designed from a landscape perspective. It encourages bank sponsors to restore watershed processes and prioritizes the use of restoration of wetlands over other mitigation activities.

In addition, the rule emphasizes elements that are necessary to develop sustainable sites in the site-selection criteria section of the rule. These elements include ensuring that the proposed site:

- has the biological, physical and chemical characteristics necessary to support wetland conditions,
- can contribute to the restoration of ecological processes and functions in a watershed,

- is surrounded by land uses that are compatible with the maintenance of wetland systems, and
- can be protected from future degradations from actions occurring off-site.

The rule requires that all bank sites have sufficient buffers to protect the long-term viability of the site. The rule also provides an incentive for bank sponsors to include larger buffer areas that will increase the ecological values and functions generated by the bank site. Bank sites with larger buffers and which provide connectivity to other habitat areas are expected to receive better conversion rates for their credits.

The rule encourages restoration of wetland systems over creation, enhancement and preservation through the use of better conversion rates for the generation of credits. In many cases, restoration of wetland systems cannot be done on a small scale (typical of many concurrent mitigation projects) and the larger size of banks enables a sponsor to undertake restoration that would not likely occur under concurrent mitigation.

The larger size of wetland banks also provides an economy of scale for performing more detailed watershed analysis than would be feasible for a small wetland mitigation site. The amount of information required by a Mitigation Bank Review Team for a bank is much greater than is required for most individual projects. More complete information on watershed conditions and functioning provides a defensible basis for regulators to consider and approve off-site mitigation options that result in more significant improvements in watershed health (Scodari and Shabman 2001).

Finally, the integration of wetland mitigation banks with watershed management and land-use plans should result in banks being located on sites that are important for the maintenance and restoration of watershed functioning. The rule provides incentives for bank sponsors to integrate their banks with existing watershed plans through credit determination, service area and an expedited review process. Banks which are established in areas where watershed analyses have been completed should have a good understanding of what the natural disturbance regimes are and can be designed (and have performance standards developed) to anticipate future disturbances (e.g., flooding, channel migration, fire or mass wastings).

2.2.3 Addressing Cumulative Effects

The *Federal Guidance* (1995) on mitigation banking states that banks should be established in the context of watershed plans:

> "Such watershed planning efforts often identify categories of activities having minimal adverse effects on the aquatic ecosystem and that, therefore, could be authorized under a general permit. In order to reduce the potential ***cumulative***

> ***effects*** of such activities, it may be appropriate to offset these types of impacts through the use of a mitigation bank established in conjunction with a watershed plan." (p. 58609, emphasis added)

Bedford (1996) noted that

> "From a policy perspective, ***the central issue in wetland mitigation is not effects on a single site but the cumulative effects of numerous mitigation decisions on landscapes.*** Mitigation must be recognized as a policy that has the potential to re-configure the kinds and spatial distribution of wetland ecosystems over large geographic areas. Within that policy, choices are made to allow some wetland ecosystems to be destroyed; others are created or restored. The patterns of destruction are not random (Dahl 1990, Dahl and Johnson 1991), nor are the patterns of replacement. Palustrine forested wetlands suffered the greatest losses from the mid-1970s to mid 1980s. Some types of wetlands (e.g., salt marshes and freshwater emergent marshes) are preferentially restored or created. Other types of wetlands are seldom, if ever replaced (e.g., bogs, fens, forested wetlands) (Kusler and Kentula 1990, Zedler and Weller 1990). Habitats of endangered species are frequently affected (Kentula et al. 1992). The net effect is the loss of wetland diversity in terms of both hydrologic functions and biological communities, and a consequent homogenization of wetland landscapes. ***One way to avoid such cumulative effects is to make decisions about individual projects within a framework focused at larger scales*** (Lee and Gosselink 1988)." (emphasis added)

Wetland banks can provide significant benefits by addressing the cumulative effects from minor impacts in an efficient and cost-effective manner.

Existing conditions

The past patterns of wetland mitigation have resulted in a loss of functions and biological communities. Several studies of wetland mitigation show that created wetland mitigation has resulted in an increase of open water wetland habitats (Gwin et al. 2000, Johnson et al. 2001). The design of these sites focused on ensuring sufficient hydrology and establishing vegetated wetlands along the gradient from open water to uplands (Kentula et al. 1992).

Under existing practices, such as the federal Nationwide Permit Program and local ordinances, minor wetland impacts may occur without the need for compensation. Part of the reason behind this practice is that the impacts themselves were believed to have minimal effect. Another reason is that the small scale of compensatory mitigation necessary was cost prohibitive and ecologically insignificant to justify a requirement for replacement.

However, the cumulative effect of these minor impacts has been significant. As development has occurred, the cumulative effect of small individual losses includes disruptions in watershed processes and the ecosystem structures supported by those processes. Studies have shown that disruptions to watershed processes, such as the delivery and routing of water and woody debris, can have detrimental effects. These include reduction in the number of species that can be supported by an area (Azous and Horner 1997) and the quality and diversity of habitat niches provided (Dale et al. 2000, Beechie and Bolton 1999). Listing of Pacific salmonids clearly illustrates that the cumulative effect of development in the urbanizing watersheds has been significant.

Wetland banks can help to address cumulative losses in a watershed by providing wetland functions anticipated to be lost in the future.

Likely effects under the rule

Where banks are established, they can provide an efficient and cost-effective means to mitigate for small unavoidable losses of wetlands. As noted above, part of the reason for not requiring mitigation of minor impacts has been a consideration of the financial hardship that would be imposed on small landowners and homeowners if they were required to provide compensation for small impacts. Where banks are located, applicants having minor impacts to wetlands would be able to simply purchase bank credits to meet their compensation requirements instead of needing to hire a consultant to figure out how they can squeeze the necessary mitigation onto their development site. For example, the Meadowlands bank in southwestern Washington provided a successful in-basin mitigation alternative for small impacts occurring in the Salmon Creek basin of Clark County.

Accordingly, some local jurisdictions may choose to incorporate wetland banking in their land-use planning in order to balance economic and environmental needs and address cumulative impacts. The presence of a wetland mitigation bank may encourage some local jurisdictions to require mitigation for impacts to small low quality wetlands which are currently exempt from regulation under land use regulations to minimize additional cumulative effects. The listing of salmonids as an endangered species in Washington has provided additional incentive for some jurisdictions to address continuing cumulative losses.

2.2.4 Reducing Temporal losses

Existing conditions

Washington State is experiencing significant amounts of temporal losses in wetland functions under its existing regulatory framework. Wetland losses usually occur prior to the construction of a compensatory wetland mitigation site. After construction, mitigation sites may take several years to develop and begin to provide wetland functions resulting in additional temporal losses (King et al. 1993).

The time needed for a newly created, restored or enhanced wetland to fully perform wetland functions varies considerably based on the type and location of the wetland (Castelle et al. 1992a, King et al. 1993). Decades may pass before a newly planted wetland area is mature enough to function as a forested wetland. In the Salmon River estuary of Oregon, the estuarine wetland was fully vegetated within eight years after tidal influence was restored, but the plant community had changed considerably in diversity and species during that time (Frenkel 1997).

Between the time when an existing wetland is affected and when the replacement wetland is fully developed, a temporal loss of wetland function takes place. Existing compensatory wetland mitigation requirements use increased ratios for area replacement to account for this loss in functions (McMillan 1998, Castelle et al. 1992a). However, at present, all of the “credit” or value of concurrent wetland mitigation is immediately available for use and the wetland impacts usually occur before the replacement wetland is even constructed.

Likely effects under the rule

Temporal losses of wetland functions will still occur with wetland mitigation banking, however, wetland banking will result in reduced temporal losses compared to concurrent mitigation.

The primary reason that temporal losses will be reduced under the draft rule is because of phased releases of credits. "Phased release" means that the credits from a bank are released over a period of time as the bank site matures instead of being immediately available, as is the case with concurrent mitigation. Under the draft rule, some credits from a bank may be released when the bank site is initially constructed, however, the majority of the banks credits are not released until the bank begins to attain specific performance standards. These performance standards are designed to serve as indicators of the successful development of a wetland ecosystem on the bank site.

This means that rather than the age of the mitigation being zero when the impacts occur, bank credits could represent compensatory wetlands that are several years old. For example, some credits would be released when the site is constructed and additional credits would be released after a year or two when the site attains its hydrology performance standards. Other credit releases occur in subsequent years as the bank meets its required performance standards. For banks proposing to restore forested wetland systems in areas dominated by reed canarygrass (*Phalaris arundinacea)*, some of the credits might not be released and available for use before the site is at least 10 years old.

In addition to the phasing of credit releases, additional reductions in temporal losses are expected when credits are not used immediately after they are released. When a credit is released by Ecology, it means that the bank sponsor can use or sell the credit. Impacts do not occur until a credit is "used" for compensation. This means that a bank may have a balance of released credits which have not been used for compensation. The net result is a temporal gain in wetland functions since impacts have yet to occur.

While it is still too early to tell how much temporal losses may be reduced by a wetland mitigation banking program in Washington, a look at Florida's experience with mitigation banking may be useful. According to Florida Department of Environmental Protection figures, only 58 percent of the credits that have been released and are available for use have been used to meet compensation requirements. In addition, most of the existing banks in Florida have only had a portion of the total potential credits released (Bersok 2001). This means that a significant number of acres in wetland mitigation banks have been constructed and are maturing prior to the impacts that they will offset occurring.

2.2.5 Higher Success Rates

Existing conditions

As noted earlier, concurrent compensatory mitigation is not as successful as had been hoped (Kunz et al. 1988, Mockler 1998, Storm and Stellini 1994, Johnson et al. 2000, Johnson et al. 2001, Gwin et al. 1999).

Likely effects under the rule

Banks in Washington are anticipated to have a higher rate of success than the 30 percent success rate recently shown for project-specific mitigation (Johnson et al. 2001). As discussed in section 2.1.3, there are two key reasons for wetland mitigation banks to have higher levels of success. First, banks are subject to significant, early technical review by a multi-agency team, and second, the bank sponsor has an economic incentive to ensure the success of the site.

In the process laid out in the draft rule and in the *Federal Guidance* (1995), banks are put through a rigorous review by a multi-agency review board (the Mitigation Bank Review Team). The team reviews bank proposals on their site selection rationale, design and technical feasibility. Bank proposals are required to include a large amount of baseline information addressing the site's ability to support wetland conditions. With concurrent mitigation, baseline information on mitigation sites is often minimal at best.

The ability of a bank sponsor to sell or use credits depends upon the successful development of the bank site. The draft rule allows for credits to be released in phases as the site meets specified success criteria. Tying a sponsor's ability to sell their credits to the attainment of success at the bank provides the strongest incentive for a bank to be successful. If a bank is not ecologically successful, it won't generate the necessary credits to provide a return on the sponsor's investment.

Additionally, the structure of a banking system lends itself to other factors that are anticipated to increase the likelihood of success for banks. Because banks are intended to provide mitigation over larger areas, they can be integrated into watershed management planning, and they are generally created at a scale that is conducive to wetland restoration unattainable under individual project mitigation.

The draft rule encourages and provides incentives for banks to be integrated with watershed management plans and be located in preferable locations for wetland restoration. The integration of bank site selection and design with larger-scale watershed needs and priorities can result in banks that are located in the right place on the landscape and which are sustainable over the long-term. When mitigation sites are located in appropriate places, such as where wetlands can be restored through management activities, the banks have a greater likelihood of success than mitigation that is forced on to a development site.

Finally, the rule includes several mechanisms to manage the risk of unsuccessful mitigation. These include:

- Requirements for financial assurances for short and long term management of the bank site.
- Credit releases are tied to the results of monitoring which provides incentives for sponsors to monitor the site and to implement adaptive management activities if necessary.

2.2.6 Benefits to Salmon

Existing conditions

Over the last century, Pacific salmon have disappeared from about 40 percent of their historical spawning and rearing habitat (National Research Council 1996). Since the early 1990s several species of salmonids in Washington have been listed as threatened or endangered under the federal Endangered Species Act. The declines in salmon populations are largely due to human impacts on the environment resulting from development and urbanization, agriculture, forestry, dams and fishing (National Research Council 1996).

Development activities, which affect wetlands and their upland buffer areas, affect salmon and their habitat. Coho salmon lose over-wintering and rearing habitat when riparian and floodplain wetlands are lost to development. Estuarine wetland losses affect critical transition and rearing habitat for coho, chum, chinook, bull trout, and sea-run cutthroat trout. Historical losses range from 25 percent of estuarine wetlands in the Skagit River estuary to 98 percent losses in the highly developed Duwamish estuary (National Research Council 1996).

Changes in riverine wetlands from diking, draining, and agricultural uses reduce native marshes and simplify watercourses into primary channels lacking the complexes of side and brained channels utilized by fish (National Research Council 1996). Lower river valleys which, historically, were the most productive spawning and rearing habitat have had limited protection due to agricultural exemptions. These areas are under increasing threat from development as larger numbers of agricultural producers go out of business and sell off farmland for residential or commercial development.

Likely effects under the rule

Recently, there has been a shift from simply replacing structural elements of an ecosystem to a broader, landscape-based approach of understanding and repairing processes within a watershed (Kauffman et al. 1999, Beechie and Bolton 1999).

The National Research Council noted in their study on Pacific salmon (1996):

> "…rehabilitating watershed processes to the extent possible given human development, including the re-establishment of riparian functions – such as providing shading, organic matter, and large woody debris – is probably more effective in improving salmon habitat over the long-term…"

When unavoidable impacts to wetlands are authorized to occur, wetland mitigation banks can benefit listed salmonid species by mitigating the effects of development projects that affect salmon habitats. Banks can be established which:

- Restore estuarine wetlands and mudflat habitats, which are important for out-migrating juvenile salmonids, food chain support, and habitats for salmon prey species;
- Restore wetlands in the upper watershed, which provide storage of surface flows, reduce downstream erosion and scour, and recharge groundwater sources, providing temperature moderation and maintenance of stream base flows;
- Restore riverine wetlands, which provide refuge from high flows, flood storage, and production export;
- Protect and restore riparian areas that provide recruitment of large woody debris, shade, detritus, bank stabilization, and reduced downstream erosion; and
- Restore access to spawning and rearing areas.

While wetland mitigation banking cannot change the trends in losses, it can provide a mechanism through which watershed processes are restored. For instance, large parcels of floodplain can be reconnected with river systems and restored to higher levels of ecological functioning. Banking can provide the incentive and capital necessary to retain and restore these areas to natural conditions rather than have them developed in a piecemeal fashion.

Banks can restore salmonid habitat, create new habitat areas, and provide water quality and quantity functions that affect the ability of water bodies to support salmon. Additionally, banks can address cumulative effects of many small wetland impacts as well as providing ecologically significant replacement of those functions.

Several sections of the draft rule can be used to support salmon recovery. Portions of the site selection criteria, integration with watershed plans, site design, use of credits, and preservation criteria support the establishment of banks which contribute to achieving properly functioning condition for salmon in a watershed.

However, it is important to note that the draft rule only addresses wetland mitigation banks. It does not address the generation and use of “habitat” or “fish” credits, otherwise known as conservation banking. Conservation banking is defined as:

> “A conservation bank is a single parcel, or a series of contiguous or non-contiguous parcels, of habitat which is managed for its natural resource values. The resource benefits derived from this management regime are sold as "credits" to project proponents who seek mitigation opportunities to compensate for resource impacts elsewhere. Credits may be generated to meet any number of resource conservation needs, including compensation for impacts to wetlands, threatened or endangered species, Environmentally Sensitive Habitat Areas,

> mudflats, sub-tidal areas, and less sensitive resources." (Wheeler and Strock 1995) [23]

Conservation banks are designed to address potential take issues under section 10 of the Endangered Species Act of 1973, as amended. Section 10 allows landowners and others to enter into an agreement (a Habitat Conservation Plan) with the National Marine Fisheries Service or the U.S. Fish and Wildlife Service on the management of lands within a specified area. Habitat Conservation Plans are usually used by large landowners, such as timber interests, in order to obtain an incidental take permit from the Services to protect the landowner from increasing regulatory restrictions on listed[24] species located on their property.

While Washington does not have any authorized conservation banks, some Habitat Conservation Plans have been developed by timber companies to address impacts to spotted owls and other listed species.

It remains to be seen if the National Marine Fisheries Service and the U.S. Fish and Wildlife Service will use conservation banks as a reasonable and prudent measure for avoiding takes to listed salmon and other species. It is clear, however, that wetland banks can be located where they would benefit salmon and can provide wetland functions necessary to maintain properly functioning conditions for salmon.

2.2.7 Efficient Use of Agency Resources

Wetland banks can result in reducing agency workload in the permitting and debiting phases of a wetland mitigation bank.

Existing conditions

When a project is required to provide compensatory mitigation for unavoidable impacts, agency staff reviews the proposed mitigation plan and determines whether the proposal is likely to be successful and will provide adequate replacement of impacts.

Lack of agency resources for follow-up has effectively prevented comprehensive enforcement of wetland permit requirements. The bulk of staff resources for regulatory programs at the state and federal levels are dedicated to permit processing and limited funds are available to perform enforcement and follow-up actions (National Academy of Sciences 2001). While the U.S. Army Corps of Engineers does complete a close-out visit

[23] http://ceres.ca.gov/wetlands/policies/mitbank.html

[24] One example is the Plum Creek Native Fish and the Plum Creek Cascades Habitat Conservation Plan in Washington.

on compensatory wetland mitigation sites they require under section 404 permits, the state does not regularly check up on or complete close out visits for mitigation projects required as a part of the state water quality certification. Without the specter of enforcement actions for lack of performance, little impetus exists for project applicants to ensure the success of the compensatory mitigation or to implement adaptive measures (Storm and Stellini 1994).

Likely effects under the rule

Wetland mitigation banking requires extensive agency review and participation during the development of the bank instrument[25]. While the initial permitting for the bank will require significant resources, agencies should realize significant time savings during the enforcement and follow-up stage of permitting for banks versus site specific mitigation.

Banking differs from concurrent compensatory wetland mitigation in several significant ways. First, the bank sponsor shoulders the burden for achieving a successful wetland site. Since most banking scenarios call for the partial or phased releases of credits, it is in the bank sponsor's economic self-interest to ensure that the site is as successful as possible.

The design, implementation and monitoring were found to be the most critical factors for successful functioning of compensation projects (Castelle et al. 1992a). Wetland mitigation banking moves the emphasis to these areas rather than the existing focus of concurrent mitigation: obtaining the permit to affect wetland resources.

The proposed certification process for wetland banks provides a more effective use of regulatory and compliance staff time. Under the draft rule, Ecology works with the U.S. Army Corps of Engineers to co-facilitate the Mitigation Bank Review Team process.

Other wetland bank review processes in this state and others have been front-loaded with extensive negotiation between the applicant and the regulatory agencies. The draft rule outlines the considerations that will be used by Ecology and the Mitigation Bank Review Team to determine site selection, how credits will be determined and service areas. This creates a form and process for what was formerly an ad hoc review of wetland mitigation proposals.

[25] A bank instrument is the legally binding contract on how the bank will be established and operated.

The majority of regulatory streamlining comes in the debit project stage. Rather than reviewing many individual mitigation plans, the agencies will only need to follow the design and development of one bank.[26] Evaluating the adequacy of compensatory mitigation will be much simpler since the staff need only determine if the bank provides the appropriate functions and wetland types rather than needing to determine if an individual mitigation site is likely to be successful. The number of plans and designs that staff will need to evaluate for small impacts will be reduced if bank credits are used instead of project-specific mitigation.

Finally, agencies will have to devote less enforcement staff time to follow-up on a consolidated wetland mitigation bank than would be necessary to follow-up on all of the individual mitigation sites that would have been developed in lieu of the bank.

2.2.8 Streamlined Process

Likely effects under the rule

The proposed rule provides streamlining in two areas. First, Ecology serves as the lead for coordinating regulatory review of bank proposals. Second, the rule contains sideboards and criteria that are used by Ecology and members of the Mitigation Bank Review Team to evaluate the bank proposal. Additionally, there is a Memorandum of Agreement being developed between the state and the federal agencies which will provide the mechanism for a "one-stop permitting" approach for bank sponsors to attain local, state and federal review and approval of a bank proposal.

Prior to the adoption of a state rule, the onus for coordinating the regulatory review lay with the bank sponsor. The bank sponsors must meet with each of the appropriate regulatory agencies to develop agreements for banks. While the F*ederal Guidance (1995)* provides some direction, there are still significant elements of each bank that must be negotiated on a case-by-case basis. Under the draft rule, Ecology, rather than the applicant, will facilitate the agency review of bank proposals.

The rule clearly identifies the elements that require decision-making by the Mitigation Bank Review Team and the considerations that the Mitigation Bank Review Team will address. Bank sponsors will be able to anticipate agency expectations and can design their proposals accordingly. The transparency of the decision-making process brings an increased level of predictability to the regulatory process and thus removes much of the financial risk associated with permitted activities. While the certification process requires a significant investment of time up front during the development of the proposal,

[26] A single bank project may include one or several distinct sites.

significant timesaving can be realized by both the applicant and the agencies during the review process for development projects using the bank as compensation.

Banks that implement watershed plans and priorities should also experience a streamlined certification process. The rule notes, in WAC 173-700-030, that bank proposals that are integrated with science-based watershed plans could experience an expedited review process. This is in part because in those cases, significant baseline information exists on the bank site and the encompassing watershed. Other areas where bank review could be expedited for banks in watershed planning areas include service area determinations and credits determination. In cases where function assessment and resource prioritization activities have occurred, the credit determination methodology may already be developed, thus reducing the time necessary for the Mitigation Bank Review Team to agree upon the types and number of credits to be generated by the bank.

Wetland mitigation banking provides economic benefits for debit project proponents and resource agencies. Banks make for faster permit processing and decision-making for debit projects once an impact is determined to be unavoidable. The permitting time is reduced because the compensation element is taken care of in advance. The agencies can see what they are receiving in terms of wetland resources at the bank, and agency applicant staff time, therefore, do not need to be used in designing and negotiating the specifics of a compensatory mitigation site. For the debit project proponent, once the agencies agree to the use of bank credits for compensation, he/she only need finalize purchase of the bank credits and provide documentation of the purchase in order to satisfy permit requirements.

Economies of scale are inherent in wetland mitigation banking, especially for developers with wide ranging impacts such as transportation agencies. Thus, it is normally less costly to establish and manage one large wetland unit than many small compensatory wetland areas.

2.3 Future Actions to Mitigate Adverse Effects

Ecology recognizes that the overall long-term effect of banking in the state is difficult to determine at this point with a limited number of banks currently in existence. In order to ensure that wetland mitigation banking does not result in further degradation of watershed functioning or inappropriate tradeoffs in wetland types or locations, Ecology will perform programmatic monitoring of the bank certification program. Programmatic monitoring includes the long-term monitoring and tracking of bank development and credit use. Long-term monitoring is needed to determine the effect of banks on the environment.

Programmatic monitoring should address the following questions:

- Has banking resulted in changes in the types and distribution of wetlands on the landscape?
- Has banking provided adequate replacement of affected functions or has it resulted in tradeoffs in wetland functions?
- Has banking resulted in the exchange of small individual wetlands for large wetland systems?

Part of the analysis will include spatially-oriented tracking of credit use. In other words, to evaluate potential trends in the use of wetland banks, we must understand the spatial relationship between the bank site and the wetlands that are affected by development and the larger landscape. Should the analysis show that the use of banks and off-site replacement of functions is occurring too far from the impact area to be ecologically beneficial, Ecology may review the criteria used for establishing service areas and provide more guidance on selection of appropriate service areas, and/or make revisions to the rule.

3.0 The Draft Rule: Approach, Certification Process and Operational Requirements

This chapter explains how the draft rule for bank certification was developed, how the certification process will be implemented and it concludes with the requirements for operating wetland mitigation banks.

For each section the statutory requirements are outlined, draft rule language is described and the rationale for selecting the draft language is explained.

3.1 Approach Used in the Rule: Flexible Versus Prescriptive

A rule can be written to be flexible or prescriptive. *Prescriptive* means that the various aspects of a bank, for example, financial assurance mechanisms, have standard requirements specified in the rule. *Flexible* means that the rule may provide limits or sideboards on a specific element, such as credit releases, while leaving the determination of the exact requirements up for review by the regulator.

To be in compliance with federal, state and local regulations, there are certain minimum protective standards that must be met in order to assure banking will adequately compensate for lost wetland functions at a given impact site. These generally appear as prescriptive parts of the rule. Examples of prescriptive elements include:

- Requirements of the bank instrument and prospectus
- Application process
- Accounting and credit tracking.

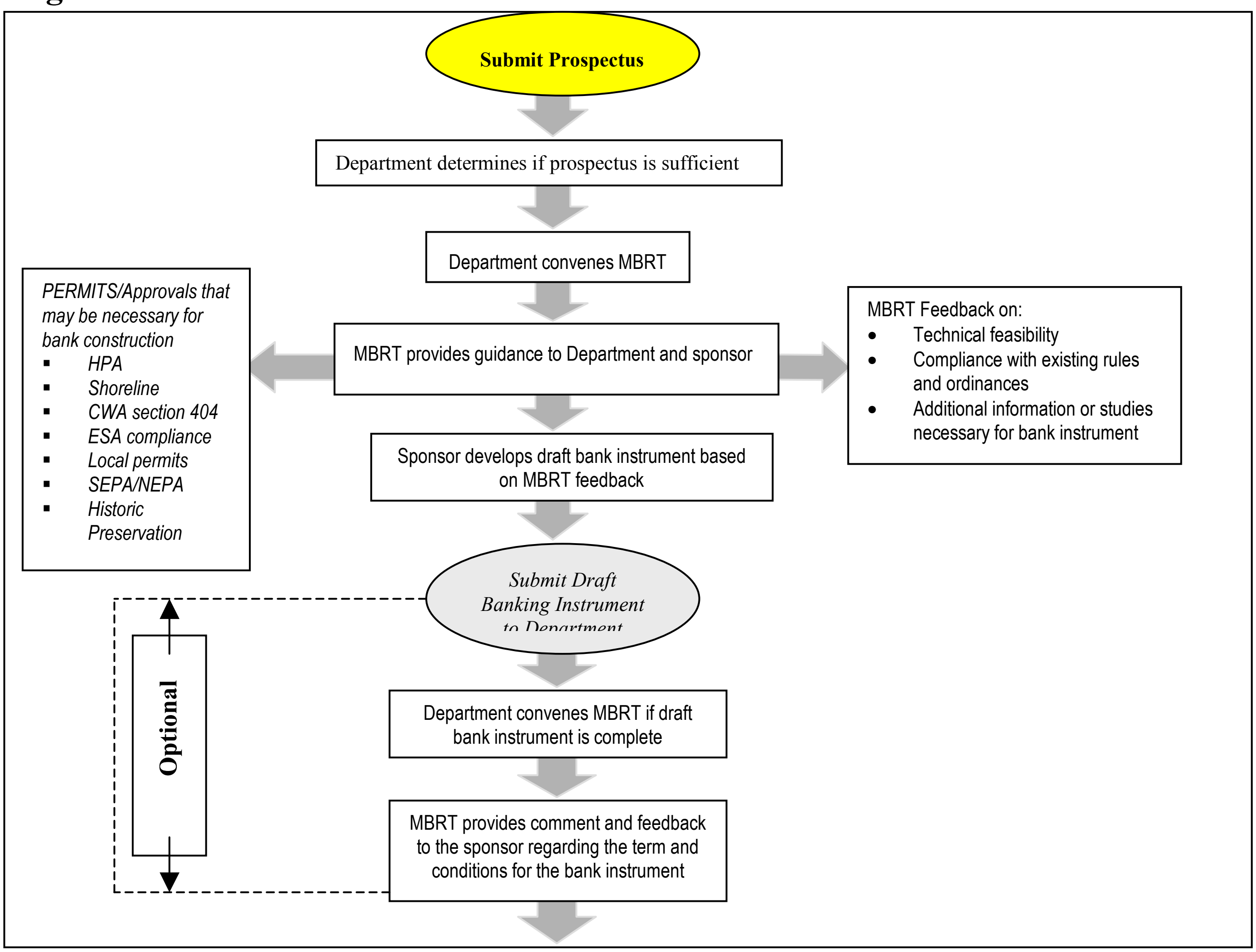
The Advisory Team recognized that there will be a considerable amount of variability in each site and that bank sponsors will have a range of experience creating, enhancing or restoring wetlands functions on their bank site. Providing more flexible language in the rule, where appropriate, will allow Ecology and the Mitigation Bank Review Team to tailor the requirements for wetland banks to case-specific circumstances. Increased flexibility in rule language also allows bank sponsors to maximize their ability to sell credits. The draft rule provides flexibility in several areas including credit conversion rates, amount and timing of credit release, service area size, performance standards, monitoring protocols and site selection. For each of these, the rule provides criteria for determining the appropriate standards on a site-specific basis.

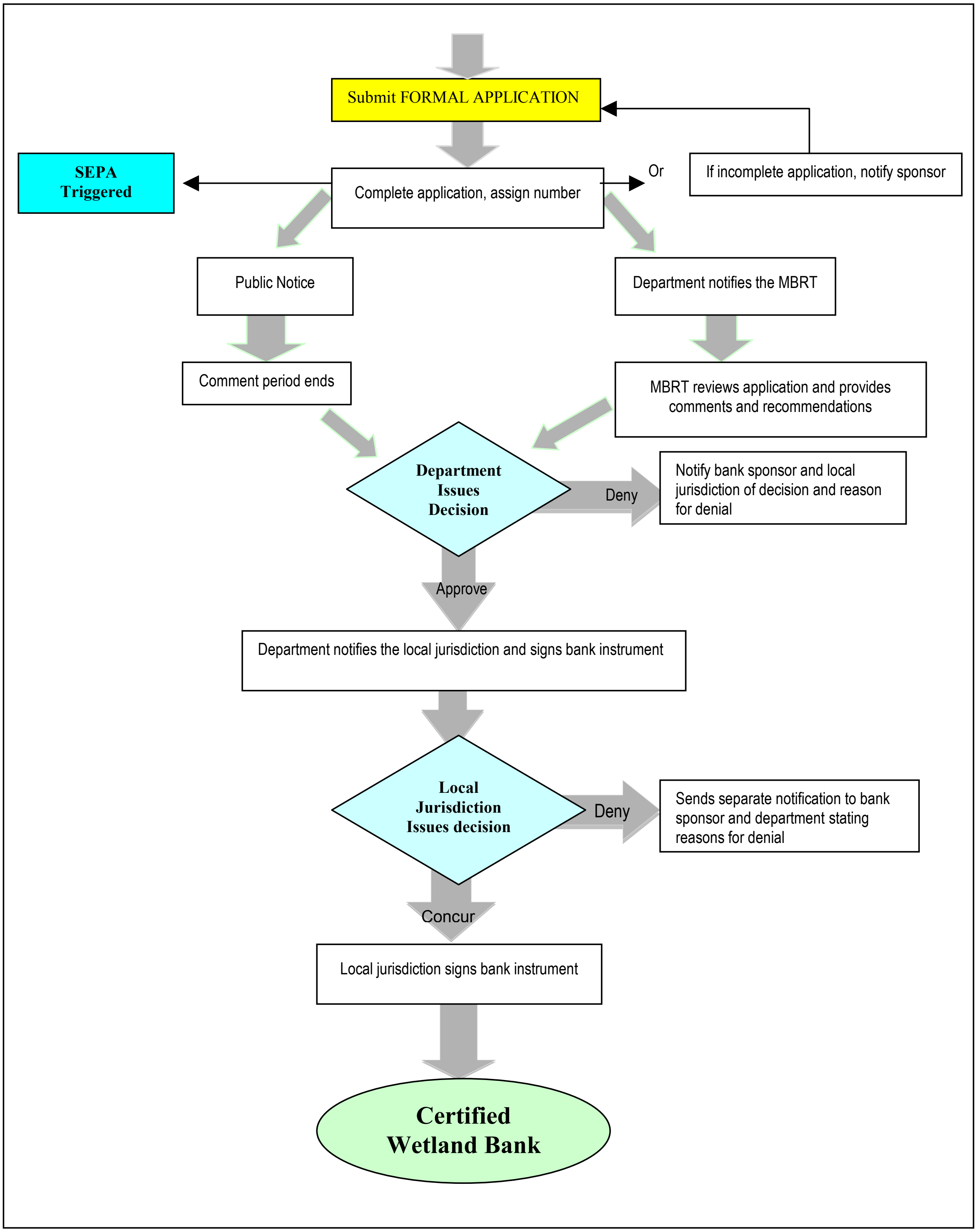
3.2 Wetland Bank Certification Process and the Roles of Participants

The draft rule establishes a new program for the certification of wetland mitigation banks. Prior to the banking law, Chapter 90.84 RCW, the state did not have a process for approving wetland banks, although it did have a state policy on wetland banking (WSDOT Memorandum of Agreement 1994, Castelle et al. 1992c).

The draft rule outlines the state certification process from application through appeals of certification decisions. This process is summarized in Figure 1.

Figure 1 – The Wetland Bank Certification Process




Submit FORMAL APPLICATION
SEPA Triggered
Complete application, assign number
Or
If incomplete application, notify sponsor
Public Notice
Department notifies the MBRT
Comment period ends
MBRT reviews application and provides comments and recommendations
Department Issues Decision
Deny
Notify bank sponsor and local jurisdiction of decision and reason for denial
Approve
Department notifies the local jurisdiction and signs bank instrument
Local Jurisdiction Issues decision
Deny
Sends separate notification to bank sponsor and department stating reasons for denial
Concur
Local jurisdiction signs bank instrument
Certified Wetland Bank

3.2.1 Role of Ecology

Description

Ecology is designated as the lead state agency for certification. It also has a role in the use of bank credits for debit projects when it requires compensatory wetland mitigation under one of the permits or authorizations that it administers. Applicants apply to Ecology for certification and Ecology implements the certification review process. Ecology coordinates with the other regulatory agencies and tribes comprising the Mitigation Bank Review Team on the review of a proposal.

Under the draft rule, Ecology has several responsibilities regarding wetland banks and their certification. Ecology certifies only those banks that meet the requirements of the rule and the intent of the law. The approved and signed bank instrument serves as the state certification. A signature from an Ecology representative on the negotiated bank instrument indicates Ecology's approval of certification for the bank. Certification is not complete, however, until a signature from the local jurisdiction is added to the bank instrument.

Ecology is responsible for maintaining a master ledger and complete files on certified wetland mitigation banks. Ecology may perform random audits to verify that a bank's transaction ledger and credit balance are consistent with the legally recorded credit transaction documents.

Ecology retains responsibility for verifying compliance with the terms of the bank instrument during the establishment and operation of the bank. It also retains the authority to ensure the long-term management and protection of the bank site after the bank's operational life is complete.

Ecology co-chairs the Mitigation Bank Review Team with the applicable local jurisdiction. The U.S. Army Corps of Engineers may also co-chair the Mitigation Bank Review Team for banks where federal approval of the bank is sought.

Under its regulatory authorities, Ecology may authorize the use of bank credits to meet compensatory mitigation required under 401 Water Quality Certifications, administrative orders under RCW 90.48, and the Shoreline Management Act (RCW 90.58).

Statutory Requirements

The statute (90.84 RCW) directs Ecology to adopt rules for a certification program for private and public wetland mitigation banks. The law also requires Ecology to ensure that mitigation sequencing has occurred before approving the use of bank credits to offset unavoidable impacts. In RCW 90.84.050, the law sets specific requirements for

Ecology's approval of the use of credits. Specifically, the law states that Ecology may approve the use of credits if one of three conditions is met:

1. The bank credits represent estuarine wetlands when the impact being offset is to estuarine wetlands or
2. There is no practicable opportunity for on-site compensatory mitigation or
3. If the use of bank credits is environmentally preferable to on-site mitigation.

Draft Rule Language

The draft rule outlines Ecology's role and responsibilities in WAC 173-700-710. Ecology directs the certification process and makes the final decision on bank certifications. The rule also emphasizes Ecology's role as the oversight and monitoring agency for the wetland mitigation banking program [WAC 173-700-710(6)].

Ecology's role as a permitting agency authorizing the use of bank credits is addressed in WAC 173-700-750.

Rationale for Rule Language

In order to achieve the goals outlined in the wetland banking law (RCW 90.84) for an efficient and predictable regulatory process, Ecology provides a leadership role in the certification process. As noted in chapter 1, the previous lack of a clear process for bank approvals placed the onus of coordinating with all of the regulatory agencies on the bank sponsor.   The lack of a clear regulatory lead for banking resulted in lengthy review times and inconsistent standards for banks in the state. With Ecology acting as the lead agency for certification, the burden for coordinating with all of the regulatory agencies has been shifted to the state. For the bank sponsor, this removes some of the expense and unpredictability from the certification process.

To accomplish the legislature's goal of achieving compensatory mitigation in an environmentally responsible manner, Ecology acts as the overseer for the banking program. Since voluntary compliance is not always effective, Ecology plays an important role in ensuring that certified banks are operated in a manner consistent with the terms of their certification.   Ecology may suspend the use of a bank's credits if the bank is not in compliance with its certification. Suspension of credit use means that suspended credits at a bank can not be used to mitigate for impacts to wetlands.

Under the draft rule, Ecology is responsible for monitoring the use of mitigation banks. As the program develops, Ecology will track the use of credits to determine how effective the banking program is at providing ecologically appropriate mitigation. (See section 2.3 for a description of this).

Finally, the rule includes language on the role of permitting agencies for debit projects. The language directs permitting agencies to provide documentation that mitigation sequencing has occurred prior to the use of credits. This language was included to satisfy the statutory intent that wetland bank credits be used for unavoidable impacts to wetlands.

3.2.2 Role of Local Jurisdictions

Description

The wetland mitigation banking statute requires a joint effort between state and local governments in the certification of mitigation banks. Even though Ecology certifies a bank proposal, the local jurisdiction in which the bank is located has veto authority. For Ecology to certify a proposed wetland bank, the local jurisdiction in which the bank is located must concur with the certification by providing a signature on the bank instrument. That signature indicates that the bank proposal does not conflict with local ordinances and that the local jurisdiction concurs with Ecology's certification decision.

Local jurisdictions have the option to co-chair the Mitigation Bank Review Team meetings with Ecology and the U.S. Army Corps of Engineers.

As a permitting entity, local jurisdictions may allow the use of bank credits to offset unavoidable adverse impacts (to wetlands) that they authorize. Some local jurisdictions may support the establishment and use of wetland mitigation banks to minimize adverse effects of planned development on wetland resources while balancing economic growth.

Statutory Requirements

RCW 90.84.040 states that:

1. Local governments must sign the bank instrument for certification to be complete; and
2. Local governments can approve the use of credits for compensatory mitigation that they require.

Draft Rule Language

The draft rule outlines the role of local jurisdictions in the certification of banks in WAC 173-700-720. The role of local jurisdictions as permitting agencies for debit projects (projects that use bank credits as compensation) is addressed in WAC 173-700-750.

Rationale for Rule Language

The wetland banking law dictates that local jurisdictions shall be signatory to the bank instrument (RCW 90.84.040). Local jurisdictions are given the option of co-chairing the Mitigation Bank Review Team for a bank located within their boundaries [WAC 173-700-720(3)]. While some jurisdictions have wetlands programs and technical staff, many other local planning departments do not have the staff time or the expertise to evaluate wetland bank proposals. The flexible language in the draft rule allows a local jurisdiction to delegate the technical review of a bank proposal to Ecology and simply concur with the Ecology certification decision if they don't have the time, staff or expertise to participate. If the rule required local jurisdictions to chair the Mitigation Bank Review Team and participate on the Mitigation Bank Review Team, it could pose a burden on smaller jurisdictions.

In order to meet the statute's intent that bank credits be used to offset unavoidable impacts to wetlands, WAC 173-700-750 requires that permitting agencies document that mitigation sequencing was used to evaluate debit projects.

3.2.3 Role of Federal Agencies

Description

Wetland mitigation banks will be designed to offset authorized impacts for a variety of permits on state, local and federal levels. Because of the different regulatory authorities involved, most bank sponsors will want to have federal approval of their bank in order to allow the greatest flexibility for the use of credits. Federal agencies may be involved in the approval of wetland banks as well as being permitting authorities for debit projects which use bank credits to meet their compensatory mitigation requirements.

Statutory Requirements

The statute requires that the draft rule be consistent with the *Federal Guidance* (1995) on wetland mitigation banks (RCW 90.84.060). Since the draft rule does not apply directly to federal agencies, there are no other statutory requirements. The *Federal Guidance* directs the U.S. Army Corps of Engineers[27] to chair the Mitigation Bank Review Team for bank proposals seeking federal approvals.

Draft Rule Language

The draft rule states that the U.S. Army Corps of Engineers may co-chair the Mitigation Bank Review Team with Ecology and the local jurisdiction [WAC 173-700-732(4)].

Rationale for Rule Language

The language in the rule allows for the participation of federal agencies, but does not require it, since state law is not binding on federal agencies. Ecology has chosen to coordinate the federal agency participation on wetland bank certifications through the development of a memorandum of agreement.

The federal agencies involved include the:

- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- National Marine Fisheries Service (invited to participate)
- U.S. Fish & Wildlife Service

Under the draft agreement, the Mitigation Bank Review Team process outlined in the draft rule will suffice for the federal Mitigation Bank Review Team process. Bank sponsors will not need to work with two different Mitigation Bank Review Teams in order to obtain both state certification and federal approval of their bank. Bank sponsors will be able to obtain federal review and comment on their proposals at the same time as the project moves through the state's certification process.

3.2.4 Role of Tribes

Description

Tribal governments are important stakeholders in decisions regarding management of the state's natural resources. Treaties with tribes in Washington protect their rights to the use of their usual and customary hunting and fishing grounds. Tribes that have usual and accustomed hunting and fishing grounds within a bank's service area may review and

[27] Except in the case of banks established under the Food Security Act. In such cases, the Natural Resources Conservation Service is the lead agency in place of the U.S. Army Corps of Engineers.

provide input on bank projects during the state certification process or through the federal Section 404 process.

Statutory Requirements

The wetland banking law (RCW 90.84) does not require tribes to be involved in wetland bank certification except under public involvement.

The *Federal Guidance* (1995) recommends that tribes be invited to participate on the Mitigation Bank Review Team. It also states that if the bank is to be used to satisfy requirements of a tribal program, the tribe may co-chair the Mitigation Bank Review Team [Part II C(3) of the *Federal Guidance*].

Draft Rule Language

WAC 173-700-732 specifies that tribes located within a proposed bank's service area will be invited by Ecology to participate on a Mitigation Bank Review Team. Tribes may to participate on a Mitigation Bank Review Team or they may decline. They are also invited, but not required, to sign bank instruments.

Rationale for Rule Language

Many tribal governments have become more active in land-use decision making, resource permitting programs and watershed planning processes. Their participation on a Mitigation Bank Review Team can help assure that establishment and operation of a bank occurs in a manner consistent with their interests.

In some cases, tribes may allow the use of a wetland bank to meet mitigation requirements under a tribal program. In such circumstances, tribes may wish to be involved during the development of a bank instrument and certification.

3.2.5 Role of the Public

Description

It is important that the public have adequate and meaningful opportunities to provide comments to the Mitigation Bank Review Team and Ecology during the review of proposed banks.

Timing of public involvement in the bank certification process is important. If the notification occurs extremely early in the process, the public may be commenting on a proposal that may change substantially during the Mitigation Bank Review Team process. If the public notification occurs later in the process, then significant decisions may have already been made.

Statutory Requirements

RCW 90.84.030 directs that the certification process rule include provisions for public involvement during the review of a bank. The law also directs that the public involvement process for bank certifications be done with existing authorities [RCW 90.84.030(3)]. The legislature intended that the rule would not develop a new duplicative process for public involvement. The language of the law requires Ecology to look to statutes other than RCW 90.84 for establishing public involvement in individual bank certifications. The language suggests that state certification of a bank cannot occur unless public involvement using existing authority has taken place.

Draft Rule Language

The draft rule, in WAC 173-700-250 through 258, outlines Ecology's goals and process for public involvement in wetland mitigation bank certifications. The rule specifies public involvement at two distinct phases in the process: 1) early input during pre-application discussions with the Mitigation Bank Review Team and 2) formal public notification and commenting during the certification process.

Agency, tribes, and stakeholder input will be sought, documented and evaluated through the Mitigation Bank Review Team forum. Ecology may also invite members of the public and non-governmental organizations to participate as advisory members on the Mitigation Bank Review Team [WAC 173-700-732(3).]

The general public, agencies, tribes and other stakeholders can review and comment on a proposal during the certification evaluation process. When bank certification also includes other approvals for construction, public notice for the bank certification will be issued jointly with that program's public notification process. If there aren't any construction permits needed, for example, a bank involving only preservation, Ecology will issue a separate public notice to solicit public comments.

Ecology will fully consider all comments received and will not issue a certification decision until the public comment period for a certification application is completed. If Ecology determines that significant public interest exists, it may hold a public hearing on the proposal. Public input will be collated and distributed to the bank applicant and members of the Mitigation Bank Review Team.

The draft rule also advises applicants in WAC 173-700-251 to solicit public input early in the pre-application process.

Rationale for Rule Language

The public must have a voice in the certification process because they are stakeholders in wetland resource management. The success or failure of wetland mitigation banks affects the public. Banks can alter the functions and distribution of wetlands in a watershed and, therefore, affect watershed processes. Disruptions to watershed processes can significantly affect human populations. For example, wetlands reduce flooding and support biological diversity (such as salmon), both of which have economic as well as ecological impacts.

The wetland mitigation banking law requires that Ecology use existing public involvement processes to solicit public input. In order to avoid redundant public review processes, Ecology will use other available opportunities to solicit public input. This includes using a joint public notice on the proposed certification in circumstances where the construction of a bank requires an authorization under another state, local or federal program which has its own public involvement process. When another process is not available, Ecology will issue a separate public notice to ensure that the public has adequate opportunity to review and comment on wetland bank certifications.

Because it is desirable to have public input early in the development of a bank proposal, the draft rule allows Ecology to invite public stakeholders to participate as advisory members on a Mitigation Bank Review Team.

3.3 Operational Requirements

3.3.1 Financial Assurances

Description

Financial assurances are mechanisms that ensure that a bank sponsor will have the financial resources necessary to operate the bank. Financial assurances ensure that funding will be available for construction, remedial or contingency actions on a bank site, and for ongoing maintenance on a bank site. Ongoing maintenance may include management for noxious or invasive species or payment of property taxes.

Financial assurances come in a variety of forms. Performance bonds, irrevocable letters of credit or trusts, escrow accounts and legislatively dedicated funds for government-operated banks are all forms of financial assurances.

Financial assurances guarantee that the public does not pay for failed bank projects. They make the bank sponsor fiscally responsible for the long-term viability of a bank.

Statutory Requirements

The wetland banking law requires that Ecology adopt rules that include financial assurances for certified banks [RCW 90.84.030(7)].

The proposed rule must be consistent with the F*ederal Guidance* on banking (RCW 90.84.060). The *Federal Guidance* states that:

> " The bank sponsor is responsible for securing sufficient funds or other financial assurances to cover contingency actions in the event of bank default or failure. Accordingly, banks posing a greater risk of failure and where credits have been debited, should have comparatively higher financial sureties in place, than those where the likelihood of success is more certain. In addition, the bank sponsor is responsible for securing adequate funding to monitor and maintain the bank throughout its operational life, as well as beyond the operation life if not self-sustaining. Total funding requirements should reflect realistic estimates for monitoring, long-term maintenance, contingency and remedial actions."

Draft Rule Language

WAC 173-700-391 through 395 outline the requirements for financial assurances for certified banks. The rule allows Ecology to require financial assurances for three purposes: construction, short-term management and long-term management. It requires Ecology to approve the amount and form of financial assurances prior to certifying a mitigation bank.

The rule does not specify which financial assurance mechanisms should be used, but outlines the elements that must be considered when the amount of the financial assurance is established. For example, financial assurances for short-term management must include costs to implement contingency actions, costs for all monitoring activities and costs for actions such as irrigation or weed control.

Under the compliance process in the rule (WAC 173-700-612), Ecology may use posted financial assurances to complete any necessary contingency actions if the bank sponsor does not perform specified actions within the timeframe required by Ecology.

WAC 173-700-391(3) allows Ecology to reduce the amount of financial assurances for a bank over time as the risks are reduced.

Rationale for Rule Language

The draft rule requires financial assurances to minimize the risk to the environment from failed banks. Reducing the possibility of bank failure through funds for remedial actions is essential to the goal of replacing wetland function and acreage. Without financial assurances, wetland losses could occur if banks fail to meet their goals. The language in the draft rule provides Ecology the enforcement mechanism and access to funds to ensure that actions necessary to avoid a total failure of a bank site can be completed.

It is essential that the rule language be flexible in regard to financial assurances to be effective and fair. The rule sets sideboards for financial assurances while giving Ecology and the Mitigation Bank Review Team the flexibility necessary to tailor the financial amounts and mechanisms to the individual conditions of each proposal.

For instance, banks where credits are not released until after construction will not be required to post a financial assurance for construction. Alternatively, proposals that contain risky or unproven techniques will be required to post higher financial assurances. For example, for bank proposals that depend upon the elimination of a highly aggressive, non-native plant such as reed canarygrass, Ecology will require higher financial assurances to ensure that contingency actions can be implemented and that there will be sufficient funds for continuing control of the non-native species.

The rule requires that financial assurances be based on the cost to have a third party perform the necessary work. This ensures that Ecology will have sufficient funds available to contract out the necessary items if the bank sponsor does not perform any required actions.

The rule also allows Ecology to change the amount of financial assurances it requires over time. Thus, as a bank site matures and the risk of failure is reduced, the sponsor is not penalized by having to continue to provide the level of financial assurances originally required.

3.3.2 Site-Specific Monitoring

Description

The proposed rule addresses two types of monitoring for wetland banking:

- site-specific monitoring for verifying the successful development of the site and
- tracking of credit use.

Tracking is discussed in section 3.3.3 of this document.

Site-specific monitoring determines whether a specific bank is in compliance with the terms of its certification. Monitoring can identify when additional actions (i.e., contingency or remedial actions) are necessary to prevent bank failure. The requirement to perform remedial actions is based on information from monitoring reports indicating that performance standards are not being met.

Monitoring also plays a critical role in regard to the timing and release of credits. The release of credits from a bank site is related to the attainment of performance standards. Performance standards represent benchmarks of function performance or ecological gain. Particular attributes of the bank are observed and measured to determine if and when performance standards are met. If the bank successfully attains or maintains the performance standards identified in the bank instrument, then it is considered successful (Ossinger 1998) and credits can be released.

Some examples of attributes used for monitoring include:

- Vegetation
  - Survival of plant species
  - Percent cover of native vegetation
  - Percent cover of invasive vegetation
  - Species richness and diversity

- Hydrology
  - Soil saturation
  - Water dimensions, such as depth, duration, and timing of inundation
  - Flow rates

- Substrates
  - Soil color
  - Soil texture

- Water Quality
  - pH

- Temperature
- Biochemical oxygen demand
- Nutrient concentrations
- Conductivity

Statutory Requirements

RCW 90.84.030(1) requires that monitoring be included in the certification rules.

The *Federal Guidance* identifies several standards for monitoring banks:

- Monitoring provisions or plans should be identified in the bank instrument.
- The monitoring plan should be based on scientifically sound performance standards specified for that particular bank.
- The bank sponsor is the party responsible for monitoring the bank according to the monitoring provisions set forth in the bank instrument.
- Monitoring should be conducted at times and at a frequency appropriate for the particular bank project.
- Monitoring should continue until the authorizing agency(ies), in consultation with the Mitigation Bank Review Team, is confident that bank success is being achieved (i.e., the performance standards are attained). This is typically five years, but the duration may be longer for projects requiring more time to reach a stable condition or where remedial activities were undertaken.
- An annual monitoring report should be prepared and distributed by the bank sponsor to the authorizing agency(ies) who is then responsible to distribute copies to other Mitigation Bank Review Team members.

The *Federal Guidance* also mentions that if the technical feasibility of a mitigation activity is uncertain, such as if a new and untested technique to restore water to a drained site is proposed, then additional monitoring requirements should be set forth to increase the likelihood of success.

Draft Rule Language

The rule prescribes how monitoring must be addressed in the bank instrument. The monitoring requirements can be found in Part IV of the rule in WAC 173-700-400 through 405.

These sections include the following elements on bank monitoring:

1. Goals of monitoring in bank certification
2. Contents of a monitoring plan

3. Contingency plan elements
4. Monitoring schedule
5. Monitoring reporting requirements
6. As-built[28] reporting requirements.

The rule identifies the goals of monitoring in bank certification in WAC 173-700-400. These goals include documentation of baseline conditions, documenting the development of the site over time and the attainment of (or failure to meet) performance standards. The rule contains prescriptive requirements for monitoring elements that must be included in a bank instrument such as the contents of a monitoring plan. Other elements of monitoring in the rule are more flexible. Using the basic criteria prescribed, Ecology and the Mitigation Bank Review Team can tailor specific requirements based on the individual conditions and goals of a wetland bank.

In WAC 173-700-403(3), Ecology is given the authority to increase monitoring requirements at banks where remedial actions have been implemented to ensure that the remedial actions are successful.

Rationale for Rule Language

Monitoring the actual progress and development of wetland mitigation banks is critical to ensuring successful compensatory mitigation and replacement of lost wetland area and function. Without adequate monitoring and oversight, there may be considerable chance that the site will fail to attain its ecological goals. While our knowledge of wetland science continues to grow, the process of restoring, creating and enhancing wetlands is still subject to considerable variability. The amount of project oversight and the use of adaptive management techniques is critical to attaining success (National Cooperative Highway Research Program 1996, National Academy of Sciences 2001).

A combination of prescription and flexibility was chosen to ensure protection to the environment, while addressing the unique circumstances of each bank. For example, the rule prescribes that the monitoring plan must be included in the bank instrument and that the plan must include the monitoring schedule and methods. However, the rule does not specify the schedule requirements (e.g., monitoring in years 1, 3, 5, 10). It allows Ecology and the Mitigation Bank Review Team to determine the appropriate monitoring schedule on an individual basis.

The bank's goals and objectives determine which variables need to be measured (Ossinger 1998). Objectives focusing on different wetland functions often need different variables measured. For example, an objective requiring a specific type of habitat may

[28] "As-builts" is commonly used to refer to plans that document the construction condition of a mitigation site. They generally include final grading and site elevations, locations of structures and the locations of plantings.

necessitate monitoring vegetative structures (e.g., thin-stemmed, emergent vegetation, large woody debris, edge and vegetation/open water interspersion), while an objective for removal of nutrients would require monitoring of the wetland's water regime to document areas of seasonal inundation.

Monitoring is also an important trigger for contingency plans and remedial actions when a site isn't attaining its performance standards. For instance, if monitoring water levels indicates insufficient water depths, a contingency plan for re-grading of the site could be required.

3.3.3 Tracking

Description

There are two levels of tracking: the individual bank level where Ecology ensures compliance with the terms of certification regarding the accounting of credits and debits, and programmatic monitoring of the use of banks statewide. Programmatic monitoring of wetland banking under WAC 173-700 is discussed in chapter 2.

Tracking requires recording the use of bank credits, including both available and debited credits at bank sites. It involves simple accounting (bank credit balances, additions and debits). Tracking may also include verifying that credits are used in ways that are consistent with any requirements in the bank instrument. For example, a bank may have a geographic restriction (smaller service area) for the use of credits to compensate for impacts to fish habitat functions.

Statutory Requirements

The law requires that the certification rule include provisions for the operation and monitoring of wetland mitigation banks in RCW 90.84.030(1). Tracking the use of bank credits is part of the operation of a wetland bank.

Draft Rule Language

WAC 173-700-411 through 173-700-416 outline the requirements for the tracking and reporting of bank credit use. Under the draft rule, the bank sponsor must:

1. Record and report all credit transactions
2. Maintain a credit tracking ledger
3. Report annually to Ecology on the status of the bank's credit balance.

Under the rule, Ecology must verify the annual transaction ledgers (WAC 173-700-415), maintain a master ledger for all banks (WAC 173-700-710) and it may perform random audits of certified banks (WAC 173-700-416).

The bank sponsor's responsibility for tracking of bank credits is outlined in WAC 700(11).

Rationale for Rule Language

Tracking the use and establishment of certified wetland banks is necessary to ensure the ecological success of the state's banking program. To protect the environment and avoid additional losses of wetland resources and function, credit use must be monitored to ensure that bank credits aren't "overdrawn." Such an overdraft could occur if credits were used prior to them being released, or if a credit were used to meet compensation requirements for two different projects under different jurisdictions.

A challenge to tracking credits in Washington is the multiple levels of regulatory authorities in this state. Since wetlands are regulated on the local level in addition to the state and federal levels, there is no single entity that has oversight or that tracks all wetland impacts and compensations. A potential exists for wetland bank credits to be sold for use on more than one project. If there is not an accurate method for tracking the use of credits, Ecology may not know when credits are used only for local requirements. Tracking should ensure that the same credit is not used to meet compensation obligations in two jurisdictions.

The proposed credit tracking and accounting process in the draft rule should result in sufficient protection against fraudulent use of bank credits. Under the draft rule, bank sponsors are required to record a transaction document at the auditor's office of the county where the bank site is located. This legal recording provides a paper trail for the transfer and use of bank credits. Sponsors are required to submit a copy of the transaction document to Ecology within 30 days of the auditor's recording.

The sponsor is also required to submit annual reports on the bank's transaction ledger. Ecology verifies the information on the annual transaction report with the master ledger that it maintains.

WAC 173-700-416 allows Ecology to randomly audit certified banks to ensure compliance. This auditing provision means that Ecology can audit a bank at any time rather than waiting for the submission of the bank sponsor's annual transaction report.

3.3.4 Use of Credits

Description

As described previously, bank credits are produced in order to provide compensatory mitigation for unavoidable impacts to wetlands. Development projects using bank credits to meet compensatory mitigation requirements are called *debit* projects. Impacts from debit projects must meet specific conditions in order to use bank credits. Generally, it must be located within the service area of the bank and the credits in the bank must provide adequate compensation for the project's impacts.

Statutory Requirements

RCW 90.84.040 authorizes local governments and state agencies to use bank credits to meet compensatory mitigation requirements under a permit that they approve.

The banking law requires Ecology to include procedures regarding credits in the rule authorizing the use of credits to offset adverse impacts [RCW 90.84.030(2)].

The rule also specifies three requirements for Ecology to use when it approves the use of credits from a bank (RCW 90.84.050). Ecology must ensure that:

- Mitigation sequencing has been applied to the proposed debit project
- Estuarine impacts are mitigated with credits from an estuarine bank
- There is either no practicable opportunity for on-site mitigation or the use of bank credits is environmentally preferable to on-site mitigation.

The *Federal Guidance* notes that use of mitigation bank credits does not relieve the applicant of the need to comply with the federal Clean Water Act section 404(b)(1) guidelines. The 404(b)(1) guidelines require that applicants first avoid and then minimize impacts to the greatest extent possible.

Projects located within a bank's service area are eligible to use credits from a bank to meet federal permit requirements if use of the bank is environmentally preferable to on-site mitigation. The guidance identifies instances where the use of a bank is a better mitigation option. It states:

> "In general, use of a mitigation bank to compensate for minor aquatic resource impacts (e.g., numerous, small impacts associated with linear projects; impacts authorized under nationwide permits) is preferable to on-site mitigation."

The guidance also states that generally, impacts to tidal wetland systems should not be compensated with non-tidal compensation.

Regarding how credits may be used, the *Federal Guidance* states:

> "In no case may the same credits be used to compensate for more than one activity; however, the same credits may be used to compensate for an activity which requires authorization under more than one program."

Draft Rule Language

Rule language addressing the use of credits is in WAC 173-700-241(6) and 173-700-500 through 173-700-505.

The draft rule states that the bank instrument must contain a description of the general types of impacts that are appropriate for compensation by the bank, as well as any restrictions on credit use [WAC 173-700-241(6)].

The rule also provides guidance, in WAC 173-700-502, for determining replacement ratios when bank credits are used. The section notes that replacement ratios for bank credits should generally be lower than those used for concurrent mitigation since bank credits are often already constructed and banks have extensive risk management mechanisms in place to reduce the risk of failure.

Credits from a certified bank may not be used to compensate for more that one impact (WAC 173-700-505). WAC 173-700-500(3) and 173-700-750 address the requirement that impacts offset by the use of bank credits for compensation must be unavoidable.

Projects that are located in a bank's service area are eligible to apply to use bank credits to meet compensation requirements. Being located within a service area means that the debit project is eligible to use bank credits, but it does not mean it is entitled to those credits. The agency requiring compensatory mitigation determines whether the use of bank credits is appropriate [WAC 173-700-500(3)].

In some instances, the rule allows for the use of credits to compensate for impacts located outside of the bank's service area upon written approval by Ecology and other signatories of the bank instrument. For example, the rule states that linear projects may use bank credits to compensate for impacts located outside of a bank's service area provided that at least one impact from the project is located within the bank's service area [WAC 173-700-504(3)].

The rule provides guidance on the use of credits for impacts to hydrologic functions and fish habitat (WAC 173-700-503). It states that, generally, impacts to fish habitat should be mitigated in the same stream reach, while impacts to hydrologic functions should be mitigated in the same sub-basin.

Rationale for Rule Language

Addressing the use of credits in the draft rule is important to guard against inappropriate compensation for impacts to wetland area and function. The *use* of bank credits, not the *establishment* of banks, has the potential to change the distribution of wetlands and the functions they perform on the landscape. The use of bank credits has the potential to reconfigure the distribution of wetlands on the landscape and the performance of processes in the watershed.

This is particularly true when losses in some functions are exchanged for gains in others. For example, if a riverine wetland bank is used to compensate primarily for impacts to depressional wetland systems, then some losses of those functions provided by depressional wetlands (e.g., reduction of downstream erosion, amphibian breeding and dispersal habitat, and nutrient removal) would be expected. If the bank credits are used to replace similar resources and functions that are lost, potential net losses are minimized.

The rule requires that a bank instrument identify what constitutes an appropriate use of bank credits. The Mitigation Bank Review Team and the certification process (which approves the bank instrument) are the safeguards ensuring that the appropriate use of credits is articulated. Since credits may be determined differently for different banks, the Mitigation Bank Review Team for each bank must not only describe what the credit represents, but how those credits may be used [WAC 173-700-241(6)].

Since different functions performed by wetlands have different scales of influence, the bank instrument may limit where credits can be used to offset losses of specific functions to a part of the bank's service area. For example, fish habitat improvements are generally considered on a stream reach (Washington Fish and Wildlife Commission 1997), while hydrologic functions of wetlands located in the upper reaches of a watershed affect all of the downstream areas in the watershed (Loukes 1990). A mitigation bank that provides fish habitat functions in addition to other functions may have a large service area which encompasses a watershed, while limiting the use of credits for fish habitat impacts to the stream reach where the bank is located.

Guidance for determining replacement ratios for debit projects in the draft rule notes that replacement ratios will often be lower than those required for projects using concurrent mitigation. Lower ratios are allowed because bank credits aren't released until risk management mechanisms[29] are in place and specific benchmarks of success are met. This results in reductions in temporal losses of wetland area and functions and the risk of failure. Additionally, depending upon the credit determination method used, an acre of credit will often represent more than one acre at the bank site[30].

Since Ecology already requires mitigation sequencing for all permits it issues, there is no need to replicate the requirement from RCW 90.84.050 in the bank certification rule. The rule states that bank credits are for use as compensation for unavoidable impacts and that the permitting agency authorizing the use should document that mitigation sequencing has occurred.

The rule recognizes that linear projects, such as transportation projects and utility projects, are fundamentally different from other types of development projects. Linear projects often have many small unavoidable wetland impacts within more than one sub-basin. Linear projects regularly use off-site and out of sub-basin compensation under current wetland mitigation programs.

The rule restricts use of credits outside of a watershed in special cases because some losses of wetland functions cannot be adequately replaced outside of the sub-basin where the impact occurs. Impacts to fish habitat in one stream reach would not be adequately replaced by mitigation activities in a different stream reach even though there is no net loss on a watershed level. Hydrologic functions are also dependent upon landscape position. Wetlands in the upper reaches of a watershed provide storage of precipitation, reducing downstream erosion and moderating fluctuations in water regimes. These wetlands, therefore, may not be adequately mitigated through the development of banks in the lower reaches of a watershed.

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[29] Such mechanisms include posting of financial assurance, permanent protection of the bank site and completion of a certified bank instrument.

[30] Note that in the methods for determining credits for banks (WAC 173-700-553 through 173-700-357) ratios are applied to acreage in the bank to account for the varying levels of ecological gain produced by different activities (restoration, creation, enhancement, preservation and buffer enhancement and preservation) on the bank site. For example, restoration of wetlands at a bank site may require 2 acres of restoration to generate 1 acre of credit.

3.3.5 Compliance

Description

Compliance involves verifying that a bank is operated in a manner consistent with the bank instrument requirements in the bank certification. Compliance is different from monitoring. Monitoring was discussed in section 3.3.2. Monitoring focuses on how the bank site is developing and whether the wetlands on the site are attaining performance standards (benchmarks for success). Compliance, however, involves ensuring that the operation of a bank (the generation and sale or use of credits) complies with the bank's terms of certification.[31] This section focuses on the compliance aspects of mitigation banking.

Statutory Requirements

RCW 90.84.030(1) requires that Ecology develop rules for the operation of wetland mitigation banks. The law also requires[32] adequate assurances that the bank will result in an overall environmental benefit for banks which involve the creation or enhancement of wetlands.

The *Federal Guidance* states that the details of the bank sponsor's responsibility to ensure the success of the bank site must be clearly delineated. Any authorizations necessary for the establishment of the bank should be conditioned to ensure that the provisions of the bank instrument are enforceable [Part II (D)(7)].

Draft Rule Language

The rule articulates Ecology's goal that certified wetland banks operate consistent with the terms of their certification. The rule (WAC 173-700-600) authorizes Ecology to use a range of actions to bring wetland mitigation banks into compliance with their certification.

The rule outlines four compliance mechanisms using a tiered approach to bring banks into compliance [WAC 173-700-601 through 173-700-630]:

1. Monitoring triggers implementation of contingency measures.
2. If contingency measures fail or are not implemented, Ecology may use the sponsor's posted financial assurances. (See section 3.3.1. of this document).

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[31] The terms of certification are specified in the bank instrument for the wetland bank.
[32] In RCW 90.84.030(b).

3. If the bank remains out of compliance, Ecology may suspend the use of credits from the bank.
4. Ecology may also adjust the total number of credits available from a bank site if it remains out of compliance.

Rationale for Rule Language

As with any regulatory program, appropriate checks must be in place to ensure that the regulated entity abides by the requirements of the bank certification regulations so that the interests of the public are protected. Studies on wetland mitigation have noted that the lack of follow-up and enforcement of permit conditions is one factor in the lack of complete success in compensatory wetland mitigation programs (Storm and Stellini 1994, Johnson et al. 2000, Kunz et al. 1992, National Academy of Sciences 2001).

Ecology must have the ability to enforce compliance with certification in order to minimize the risks to the environment and ensure that the public does not bear the costs of failed bank projects. The purpose of the compliance mechanisms above is to ensure that banks that fail to attain their performance standards can be rectified or that their use will not result in uncompensated impacts to wetlands.

Bank sponsors need a clear, predictable process and the opportunity to come into compliance before enforcement actions are taken. Recognizing that restoring, creating and enhancing wetlands is not entirely predictable, and that the final outcome on a site may be significantly different from the intended result, the draft rule uses adaptive management as the first mechanism to gain compliance. The draft rule gives banks an opportunity to get back into compliance before Ecology implements enforcement actions.

3.3.6 Incentives

Description

A wide range of benefits can be derived from mitigation banks. The rule ensures that certified banks will be held to a minimum standard for success. The standards require that sites selected for wetland mitigation banks have the physical and biological characteristic necessary to achieve the bank's goals and objectives.

However, even when a wetland bank successfully creates wetland resources, the significance of that benefit can vary based on where and how the site supports watershed health and functioning. For example, a bank may provide for a particular species of wildlife. While the bank provides adequate habitat, if the bank is located where there are corridors to other habitat areas, the value of the bank site to the wildlife would be much greater than if the bank site were isolated from other natural areas.

Various incentives, such as more favorable credit conversion rates, can be used to encourage bank sponsors to locate and build banks that provide greater benefits to watershed functioning.

Statutory Requirements

The state wetland banking law and the *Federal Guidance* do not include any requirements for the use of incentives in wetland bank certification.

Draft Rule Language

WAC 173-700-300 explains the incentives available to bank sponsors to develop ecologically significant wetland mitigation banks. The incentives include more favorable credit conversion rates, higher releases of credits and larger service areas. Banks that satisfy more of the decision-making criteria for each of these elements or that satisfy those criteria to a higher degree generally receive more favorable conditions.

The rule also includes incentives for bank sponsors to increase the level of ecological gains realized at a bank site (WAC 173-700-620). The rule allows Ecology to increase or decrease the number of credits at a bank based on the actual level of performance of the bank.

Rationale for Rule Language

During the Advisory Team process, the team advocated that bank sponsors should be encouraged to select a bank site that is important for the functioning of the watershed or one that is identified as a priority restoration site. Unfortunately, the priority sites for watershed restoration are not always identified or available. Identification of a site as an important restoration site can drive up the cost of the site. Additionally, the owner of a priority site may not be willing to sell the site for restoration purposes. In such cases, a bank sponsor must devote more energy and capital in order to establish a bank on a priority restoration site. The Advisory Team decided that incentives should be used to encourage bank sponsors to select priority restoration sites and develop more regionally significant mitigation.

Several of the incentives in the rule are designed to increase the economic return for the bank sponsor since many of the elements needed for a more ecologically significant bank could add to the bank sponsor's bank development costs. Better credit conversion rates, larger service areas and higher releases of credits all provide incentives that increase economic returns. These incentives are justifiable if the bank location and design provide greater functions.

It is appropriate that the Mitigation Bank Review Team and Ecology determine incentives on a case-by-case basis because of the variability in a bank's contribution to a watershed. Bank proposals that meet more of the technical considerations listed in the rule or those that meet the criteria to a higher degree are eligible for more favorable conditions in the bank certification for credits and market area.

The advisory team also wanted to provide incentives for bank sponsors to perform management activities over the life of the bank to increase the functions performed at a bank site. The rule allows Ecology, in coordination with other bank signatories (agencies or entities which are signatory to a bank instrument[33]) to increase the number of credits at a bank site if the bank exceeds the originally projected levels of function at the site.

Finally, the rule allows restoration and creation credits to be recalculated up to a conversion rate of 1:1 based on the final attainment of all of the bank's performance standards. This language allows Ecology to manage the risk associated with creation and experimental restoration through conversion rates of greater than 1:1 (acres of mitigation in the bank : acres of credit) while eliminating the penalty for creation or restoration activities that are fully successful.

[33] Each bank will have a unique group of signatories for their bank instrument. Signatories to a bank instrument agree to the terms and conditions of the bank instrument and bank certification.

4.0 The Draft Rule: Technical Requirements

This chapter discusses how the rule addresses the technical requirements for wetland banks. The technical requirements addressed include service area, site selection, credit determination and credit release.

4.1 Geographic Extent of the Service Area

4.1.1 Description

A service area is defined in statute as "the designated geographic area in which a bank can reasonably be expected to provide appropriate compensation for unavoidable impacts to wetlands" [RCW 90.84.010(8)]. Debit projects located within the service area of a bank may request credits from the bank to meet their compensatory mitigation needs. However, their presence within a bank's service area does not guarantee that the use of bank credits will be approved.

The service area of the bank can be described as its "zone of influence." The most important consideration for a service area is determining the geographic extent in which the functions the bank provides can compensate for losses, particularly when viewed from a landscape scale. Thus, the determination of a bank's service area requires consideration of what functions are provided at the bank and how the bank's performance contributes to watershed health.

A bank may have a single service area, or it can have multiple service areas based on functions.

4.1.2 Statutory Requirements

RCW 90.84.030(5) directs Ecology to adopt rules for the "establishment of criteria for determining service areas."

The *Federal Guidance* recommends considerations for determining appropriate service areas.[34] The guidance states that service areas should be based on considerations of hydrologic and biotic criteria. The geographic extent of the service area could be guided by any of the following:

- the cataloging unit of the "hydrologic unit map of the United States" (U.S. Geological Survey 1980) or
- ecoregions as identified in "Ecoregions of the United States" (Omernik and Gallant 1986) or
- Description of the Ecoregions of the United States (Bailey 1995).

The guidance also recommends that when available, classification systems developed at the state or regional level should be used to specify service areas.

Additionally, the *Federal Guidance* encourages the integration of wetland banks with resource management plans. Banks may use larger service areas if the larger designation is supported by resource management plans.

Finally, the *Federal Guidance* also allows larger service areas for mitigation banks whose primary purpose is to provide mitigation for linear projects that typically have minor impacts in several watersheds.

4.1.3 Draft Rule Language

The draft rule is flexible in regard to the geographic extent of the service area. The rule outlines a process and supplies general criteria for determining service area using available site-specific information.

The draft rule states that Ecology, with the Mitigation Bank Review Team, determines each bank's service area. The determination of service areas is based upon consideration of criteria listed in section WAC 173-700-311.

WAC 173-700-310(3) emphasizes that the extent of the service area is based upon the functions provided by the bank and the distance from the bank that those functions can reasonably provide compensation for impacts.

The rule articulates that integration with watershed management plans is a component for determining service area [WAC 173-700- 300(3)]. WAC 173-700-030 specifically encourages the integration of wetland mitigation banks with watershed management plans and other land-use plans.

[34] **Section II D**. *Criteria for use of a Mitigation Bank*, subsection 3. *Geographic Limits of Availability*, page 58611.

4.1.4 Rationale for Rule Language

The success of a bank will partially depend upon selecting a service area where the bank can provide greater environmental benefit over on-site mitigation, and where there is a sufficient market and demand for credits.

Early in the Advisory Team process, the team decided that service areas for banks needed to be set on a case-by-case basis and that the rule should include criteria for determining the service area. The team felt that a single service area requirement (e.g., a watershed or river basin) would not address the differences between wetlands and the differences in the spatial extent of functions. Rather than take a one-size-fits-all approach, the team decided that a more flexible approach with decision-making criteria would be more effective and environmentally protective. This more flexible approach using criteria allows the Mitigation Bank Review Team and Ecology to establish a service area that addresses the variability in wetlands and watersheds while minimizing the potential for adverse environmental effects and providing some predictability for bank sponsors.

The Environmental Law Institute noted in their study of wetland mitigation banking that while service area determinations are best made in the context of watershed or area-wide planning, in the absence of such planning, the use of hydrologic and biologic criteria for service area determinations makes the most sense (Environmental Law Institute 1993).

In the draft rule, the most important criteria are the ecological criteria including the types of functions provided by the bank, the watershed (WRIA) and ecoregion in which the bank is located, and the landscape setting of the bank. The anticipated impacts for which the bank will provide compensation are also considered in the determination of service area.

Further information and direction for regulators and applicants on determining service areas will be included in the wetland banking guidance document.[35]

[35] See the section on the proposed guidance document discussed earlier in this document (p. xii).

4.2 Site Selection

4.2.1 Description

The selection of a site is one of the most critical elements for attaining an ecologically successful mitigation bank. Site selection determines if wetlands can be sustained over the long term. Site-selection criteria, therefore, must address whether a specific site is suitable to support wetlands. The site where a bank is located affects the design of the bank and what functions can be achieved. The functions provided by a bank in turn affect what impacts can be mitigated there. Locations that would be desirable for wetland banking should provide multiple ecological and societal benefits and be sustainable over the long-term.

Criteria for site selection should include factors that are necessary for achieving success at a bank site, as well as those that would identify a high potential for failure. Elements that influence the success or failure of a wetland bank site include having sufficient water at a site to support wetlands, appropriate soils, the seed bank present at the site and whether the site has sufficient buffers to protect it from off-site disturbances and provide connectivity to other aquatic and upland habitat areas.

4.2.2 Statutory Requirements

By directing Ecology to draft rules for a wetland bank certification program, the legislature intended that banking in Washington State be administered in an ecologically sound manner. While the statute does not specifically address the selection of bank sites, site selection is part of the certification of banks listed in section RCW 90.84.030(1). The legislature did direct Ecology, in the law, to give priority to banks providing the restoration of former wetlands.

The *Federal Guidance* states that agencies should give "careful consideration to the ecological suitability of a site for achieving the goal and objectives of a bank, i.e., that it posses (*sic*) the physical, chemical and biological characteristics to support establishment of the desired aquatic resources and functions. Size and location of the site relative to other ecological features, hydrologic sources (including the availability of water rights), and compatibility with adjacent land uses and watershed management plans are important factors for consideration."

4.2.3 Draft Rule Language

The draft rule states, “Mitigation banks must be planned and designed to be self-sustaining over time. The department and the Mitigation Bank Review Team shall carefully consider ecological sustainability and suitability when determining if a site is an appropriate location for a mitigation bank.” [WAC 173-700-320(1)]

The proposed rule establishes site selection criteria in WAC 173-700-320. During the pre-application phase for wetland mitigation bank certification, bank sponsors are required to present the rationale for selection of the proposed bank site(s). The rationale must include a discussion on how the site meets the site-selection considerations listed in subsection 320 of the draft rule. Ecology and the Mitigation Bank Review Team are required to determine whether proposed sites are suitable for establishing a wetland mitigation bank based on these considerations.

4.2.4 Rationale for Rule Language

The long-term viability of ecologically sound wetland mitigation banks is a central goal of the wetland mitigation banking certification program [WAC 173-700-020(1)]. The selection of a bank site is most critical for the ecological viability of a mitigation bank.

A well-functioning bank cannot be developed on a site that does not have the physical characteristics necessary to support it. The physical and biological constraints of a site affect the long-term functioning of the site and its contribution to the condition of the watershed (Bedford 1999). The proposed language on site selection ensures that the bank sponsor (when selecting a bank site) and the Mitigation Bank Review Team (when evaluating a bank proposal) each consider those physical and biological factors and landscape considerations which affect the likelihood for successful banks.

Elements that influence the long-term sustainability and function of a wetland bank site include:

- Adequate sources of water
- Appropriate soils
- Size of the site
- Compatibility with surrounding land uses
- Historical land uses
- Existence of a native seed bank
- Presence of invasive species
- Buffer size and quality
- Connectivity to other aquatic systems and habitat areas

While the presence of water is the most critical factor in the development of wetlands, it is one of the least studied elements in most mitigation plans and the most common cause of failures in compensatory mitigation sites (Kusler and Kentula 1990**,** Mitsch and Gosselink 1993, National Cooperative Highway Research Program 1996). The type of soil present on a site influences the vegetation composition and the ability of wetlands to perform some functions such as nutrient and toxin removal (Hruby et al. 1999). The draft rule echoes the *Federal Guidance* in requiring that the physical and chemical conditions on a proposed site are adequate to support the bank's goals and objectives. The site-selection criteria emphasize the need for adequate information as to whether or not the sources of water for the site are sufficient to support the proposed hydrologic regime.

The Advisory Team recognized that activities outside of a bank site can significantly affect the sustainability of the bank and its ability to perform specific functions. The site selection considerations in the rule address adjacent land-uses and whether they contribute to the bank's goals or whether they could compromise the functioning of the bank.

Wetland banks that are located in areas where they provide either a large habitat enclave or connectivity to other habitat areas are desirable. Large sites provide interior habitats that are protected from disturbance and provide refuge for species that are more sensitive to disturbances or intrusions. Principles of ecology and biological diversity show that larger sites tend to support larger number of species and are less susceptible to catastrophic events (Dale et al. 2000).

Banks can also be located to provide connective corridors between other habitat areas. Areas with good habitat that are linked to each other can support a higher diversity of organisms and are often considered more valuable than isolated patches of habitat. (Diamond 1975). Terrestrial animal species that have large ranges can be supported through a network of habitat areas that are connected with protected corridors. Wetland banks that are located adjacent to existing natural preserves can increase the value of those sites through providing additional habitat and buffers to the preserve.

The existence of a native seed bank can contribute to re-vegetation of the site by native wetland vegetation while the presence of highly invasive non-native vegetation (e.g., reed canarygrass, *Phalaris Arundinacea*) can severely compromise the ability of the site to support diverse native plant communities (Johnson and Schirato 2000).

Because the selection of sites that restore specific functions or habitat types can help meet watershed restoration goals, bank sites should be planned to address specific resource needs in watersheds (*Federal Guidance* p. 58609, Scodari and Shabman 2001). The draft rule emphasizes the selection of sites that are integrated with watershed plans through the site-selection criteria and the incentives for integrating banks and watershed plans (see section 3.3.6 of this document).

In order to ensure that, in the event of a failure, the bank site still contributes something to the watershed, site selection is particularly important. In the event of an economic or ecological failure of a bank, the land comprising the bank is permanently protected (WAC 173-700-422). Prior to release of any credits, a bank sponsor must have placed at least a conservation easement on the proposed bank site. While a bank failure may mean that all of the proposed wetland functions are not attained, if the site is located in an area that provides connectivity to other natural areas, it can still provide important ecological functions.

4.3 Credit Determination

4.3.1 Description

A central component of wetland mitigation banking is the establishment of a trading medium or "currency" that is used to quantify the ecological gains generated at a wetland bank (Environmental Law Institute 1993). The currency is usually described as credits. Credits are generated at a bank site when a bank sponsor performs actions that increase the area, quality and performance of functions of wetlands on a bank site.

Determination of credits includes the identification of the trading medium for credits (e.g., acreage or function) and the calculation of the number of credits produced at a bank site. Credits can be determined based on simple indices such as acreage and wetland type or they can be based on single or multiple measurements of function. To determine the amount of bank credit necessary to offset debits incurred, it is critical that the methods used to determine credits at a bank site can also be used to determine the number of debits at an impact site (Marsh 1996b). Regulatory agencies require that compensatory mitigation replace not only wetland areas lost, but also the functions affected. The currency used, therefore, influences the amount of credits that must be withdrawn for a particular project.

4.3.2 Statutory Requirements

RCW 90.84.010(3) defines credit as "a unit of trade representing the increase in the ecological value of the site, as measured by acreage, functions and/or values, or by some other assessment method."

RCW 90.84.030(2) requires that rules be developed for the determination of credits.

The *Federal Guidance* defines credit as:

> "A unit of measure representing the accrual or attainment of aquatic functions at a mitigation bank; the measure of function is typically indexed to the number of wetland acres restored, created, enhanced or preserved." (p. 58609)

The *Federal Guidance* permits credits for upland areas "to the degree that such features increase the overall ecological functioning of the bank."

4.3.3 Draft Rule Language

The proposed rule outlines credit determination in sections WAC 173-700-350 through 361. For ease of discussion, the sections are broken out into 5 major topics:

- Generation of credits
- Default credit determination method
- Conversion rates by mitigation activity
- Alternative credit determination methods
- Non-wetland areas

Generation of Credits

The draft rule states that credits may be generated at a bank site through the restoration, creation, enhancement or preservation of wetlands. Credits may also be generated by buffer areas and upland habitats within the bank to the degree that they contribute to the overall ecological functioning of the system.

Default Credit Determination Method

The proposed rule specifies that the default currency for wetland mitigation banks be based on acreage and wetland rating.[36] The bank instrument describes what the "credit" represents. The credits represent the value in the bank after it has achieved all performance standards. For example, a credit in a mitigation bank could represent an acre of Category II[37] riverine wetland that reduces down-stream erosion, provides fish and aquatic mammal habitat and provides nutrient cycling functions.

[36] Wetland rating refers to the wetland category of the site as determined by using the Washington State Wetland Rating System for western and eastern Washington (Ecology 1993 and 1991, respectively).
[37] In this example, Category II refers to the Washington State Wetland Rating System.

Under the default system, bank credits aren't broken out by the Cowardin class (e.g., credit X is emergent wetland while credit Y is forested wetland), rather they represent a percentage of the overall wetland ecosystem provided at the bank site.

Conversion Rates for Activities

Under the default method, credits are determined by applying conversion rates for each type of mitigation activity on the bank site, i.e., restoration, creation, enhancement or preservation of wetlands and adjacent upland habitats. The conversion rates are a ratio of acre-credit to acre of activity. For example, one acre-credit may be generated by 1 to 2 acres of restoration. The applicable conversion rates for specific bank sites will be determined by Ecology in consultation with the Mitigation Bank Review Team and specified in the instrument for the bank.

The rule lists the ranges of conversion rates for determining credits generated for each at a bank. The conversion rates are as follows:

Restoration of wetlands shall generate credits at a rate of 1:1 to 1:2 acre-credit to acres of restored wetland.
Creation of wetlands shall generate credits at a rate of 1:1 to 1:5 acre-credit to acres of creation.
Enhancement of wetlands on bank sites shall generate credits at a rate of 1:2 to 1:6 acre-credit to acres of enhanced wetland.
Preservation of wetlands on bank sites shall generate credits at a rate of 1:5 to 1:20 acre-credit to acres of protected wetland.

Preservation in conjunction with restoration, creation or enhancement of wetlands on a bank site is preferred over preservation alone. In some limited cases, however, preservation alone may generate credits. The decision to allow preservation-only banks is at the discretion of Ecology and the Mitigation Bank Review Team.

Alternative credit determination methods

WAC 173-700-359 allows credits in a bank to be determined differently from the default method described above. A bank could use a function assessment method to determine credits that represent relative levels of performance of wetland functions. Alternatively, a bank may have credits that represent on-the-ground acres of different wetland types or mitigation activities (e.g., enhancement, restoration, creation or preservation) without using the conversion rates. For example, a bank may have credits delineated as X acre-credits of enhanced wetland, X acre-credits of created wetland and X acre credits of preserved wetland.

Under the proposed rule, if an alternative method to determine credits is used, it must meet four criteria:

1. The department, through the Mitigation Bank Review Team process, approves of the method;
2. The method is applicable and appropriate for the Pacific Northwest;
3. The method is applicable for use on projects debiting from the bank; and
4. The same method is applied to the bank throughout the operational life of the bank.

Non-wetland Areas (Buffers and Other Uplands)

The draft rule allows credits to be generated by non-wetland areas in the bank. The Mitigation Bank Review Team will require a minimum buffer for the bank. This buffer does not generate credit, however, any buffer or upland area provided above and beyond the minimum required buffer is eligible to generate credit. The rule contains criteria for determining the minimum buffer width (WAC 173-700-340) and for determining the credit conversion rate for buffers and uplands (WAC 173-700-357). The rule allows credits for non-wetland areas to be generated at a rate between 1:5 to 1:20 based on the contribution of those areas to the functioning of the wetlands in the bank (WAC 173-700-356).

4.3.4 Rationale for Rule Language

Generation of Credits

Bank crediting poses similar difficulties as current mitigation processes where the "value of compensation provided" is weighed against the "value of wetlands lost" to determine the adequacy of the proposed compensation. Compensatory mitigation requirements generally require the replacement of wetland acre and function. While the determination of area replacement is fairly straightforward, determining adequate function replacement has proven much more difficult.

Currently, two predominant approaches are used to address the issue of identifying the relative level of performance of functions in individual wetlands for compensatory mitigation requirements. One technique is the use of classification and characterization systems to group wetlands by common characteristics or distinguishing properties. These classification and characterization systems identify characteristics of wetlands that serve as indicators of the wetland's potential performance of specific functions (Environmental Law Institute 1993).

A second approach to determining compensation requirements is the use of assessment methods to determine qualitatively and quantitatively a wetland's ability to provide certain functions. Most of the assessment methods available currently are qualitative methods that use the presence of indicators to infer the ability of a wetland to perform functions and to gauge its expected level of performance in relation to a reference wetland which represents the highest level of performance for specific functions. These assessment methods do not, however, provide quantitative information on the wetland's actual level of performance.

Default Credit Determination Method

In Washington, acreage has been the basic unit of trade for concurrent mitigation.[38] Mitigation requirements use compensation ratios to determine the amount of wetland acreage necessary to provide adequate compensation. Most compensation ratios vary to account for differences in the impacted and replacement wetlands types, rating categories, Cowardin classes, temporal losses, risk of failure, off-site and out-of-kind considerations.

However, a direct comparison of impact with compensation is not available with banking, since the credits represent a portion of the whole bank site, rather than a specific area within the bank. In the determination of bank credits, the credits usually represent mature, successful mitigation. During the compensatory mitigation process, multipliers (ratios) are usually applied to the impacts on an acreage basis to determine the amount of mitigation necessary to compensate for temporal losses of wetland function, risks of failure, off-site relocation of mitigation and out-of-kind tradeoffs. With banking, conversion factors for off-site or out-of-kind considerations are addressed at the debit stage (see section 3.3.4 of this document).

The draft rule recommends that as a default, credits be determined based on acreage and wetland type because at this point in time we do not have the tools available to develop function-based currency.[39] Therefore, surrogate indicators of function performance such as wetland type,[40] quality and acreage must be relied on.

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[38] The Corps of Engineers, however, does not use ratios and determines all compensatory mitigation requirements on a case-by-case basis.
[39] There are some promising tools for assessing functions that might work for determining credits, such as the Washington function assessment methods. However, assessment methods are not currently available for all hydrogeomorphic classes in the state and it is not clear how well those methods will work for extremely small wetland impacts at the debit end.
[40] Wetland type refers to wetland category and hydrogeomorphic class.

Conversion Rates for Activities

As described earlier, the default method for determining credits uses acreage and conversion rates to calculate the number of credits generated at a bank. The default method uses conversion rates as a way of quantifying the ecological gain at a bank site. The conversion rates are applied to area based on the type of mitigation activity performed. The rule includes ranges of conversion rates for each mitigation activity because the Advisory Team recognized that different activities, such as creation or restoration, have different risks associated with them and different net levels of gain possible depending upon the original condition of the bank site. For instance, with enhancement, under-planting an existing deciduous forested wetland with conifers provides less ecological gain than would establishing a forested wetland on a highly degraded wet pasture dominated by non-native vegetation where grazing is still occurring.

Providing ranges for conversion rates allows the Mitigation Bank Review Team and Ecology to address the variability in the level of ecological gain possible at bank sites.

Alternative Credit Determination Methods

The rule allows for the use of other methods to determine credits aside from the use of conversion rates and area. For example, a bank sponsor may wish to use the Washington Function Assessment Method for determining credits in their bank. Using this method, credits could be based on the relative level of performance of each function per acre.

Alternatively, a sponsor may prefer to determine credits simply on an acre basis by mitigation activity (e.g., creation, restoration, etc).

This alternative allows the determination of credits for banks to be adapted based on local needs and conditions. For example, if the local critical areas ordinance requires specific replacement ratios (e.g., 2:1 for creation, 6:1 for enhancement) based on wetland category for all compensatory mitigation, then a bank sponsor would not want to use the default method which includes conversion rates since the local regulations will require additional ratios to be applied to credits generated at the bank.

Non-Wetland Areas (Buffers And Other Uplands)

Comments received from the Advisory Team and members of the public indicated that the original proposal, to not allow buffer areas to generate credit, would result in several disincentives to attaining high-quality buffers and would effectively penalize bank sponsors. With concurrent mitigation, buffer areas for sites are required by Ecology [41] to protect wetland resources. The required buffer areas are considered part of a compensation package. In effect, buffer areas are given "credit" in concurrent mitigation and banking should be consistent with existing regulatory standards, not held to a higher standard.

Additionally, if bank sponsors do not receive credits for buffer acreage or upland areas within the bank, the most cost-effective option would be to minimize the acreage on the bank site that doesn't generate credits. This will encourage bank sites that are more compact in area and provide a significant disincentive for banks that are more linear in nature such as those including river or stream corridors, such as wetland/riparian bank sites or those that provide a mosaic of small wetlands and uplands.

The draft rule recognizes the value of buffer areas for protecting wetlands from adverse effects of adjacent land uses, as important habitat areas and as an important part of wetland ecosystems (McMillan 2000, Castelle et al. 1992) by requiring a minimum buffer on all sites. Allowing some credit for additional buffers and upland areas provides the opportunity to encourage more ecologically sound banks where additional buffers or uplands contribute significantly to the site's functioning.

4.4 Credit Release

4.4.1 Description

Unlike concurrent mitigation where all of the mitigation "credit" is available concurrent with, or even prior to, site construction, wetland bank credits are released over an extended period of time (Marsh and Young 1996). Initial credits from a wetland mitigation bank are not released until after:

- The site has been secured and financial assurances for long-term management are established.
- The bank instrument has been approved.

[41] Under the department's authority under Chapter 90.48 RCW, Water Pollution Control Act, Chapter 90.84 RCW Wetlands Mitigation Banking, and the Shoreline Management Act Chapter 90.58 RCW.

- The site has been constructed.[42]

In many cases, banks credits are not released for use until the site has met performance-based success criteria (Scodari and Shabman 1995, Marsh 1996a).

When a mitigation bank is developed, the Mitigation Bank Review Team and the bank sponsor determine the number of wetland credits that will be produced by the bank. The Mitigation Bank Review Team sets specific success standards that the bank must attain in order for credits to be generated and released for use (Marsh 1996b). These standards for success and schedule, outlining the timing and amount of credit releases for banks, are documented in the bank instrument (*Federal Guidance* 1995). The release of credits from a bank generally take place over an extended period and a bank must meet all of its performance standards in order to obtain complete release of credits generated (Scodari and Shabman 1995).

The timing of credit releases affects the economic viability of wetland banks (Scodari and Shabman 1995, Shabman et al. 1998) and the level of risk that authorized impacts to wetlands are inadequately compensated. Credits released later in the development of a bank have less risk of failing to provide anticipated functions and area (Shabman et al. 1994) because these credits represent a wetland that has been developing for a longer period of time and is more likely to be providing significant functions.

4.4.2 Statutory Requirements

The wetland banking statute, Chapter 90.84 RCW, allows for a phased release of credits as different levels of performance standards are met. A banker may use or sell bank credits prior to the full success of a bank with phased release of credits.

The *Federal Guidance* references the timing of credit release, specifically, the pre-success release of credits:

> "The number of credits available for withdrawal (i.e., debiting) should be commensurate with the level of aquatic functions attained at the bank at the time of debiting." (p. 58611)

And on page 58612 the *Guidance* reads:

> "The success of a mitigation bank with regard to its capacity to establish a healthy and fully functional aquatic system relates directly to both the

[42] The *Federal Guidance* requires these three conditions to be met for credits to be released from a bank (except for those banks consisting of preservation only, in which case the first two conditions must be met). The guidance and the state rule do allow for some release of credits prior to construction at the discretion of the Mitigation Bank Review Team.

ecological and financial stability of the bank. Since financial considerations are particularly critical in early stages of bank development, it is generally appropriate, in cases where there is adequate financial assurance and where the likelihood of the success of the bank is high, to allow limited debiting of a percentage of the total credits projected for the bank at maturity."

4.4.3 Draft Rule Language

The proposed rule allows for the phased release of credits for wetland mitigation banks. The proposed rule contains caps on the percentage of credits that may be released when minimum performance standards are met. The rule allows for release of credits prior to bank construction on a case-by-case basis as determined by the Mitigation Bank Review Team.

This approach allows flexibility for the specific elements (e.g., what performance standards will be used), while outlining minimum standards and maximum amounts for credit releases.

Performance Standards

WAC 173-700- 380 outlines the minimum standards for performance standards.

Release of Credits

WAC 173-700-370 outlines the requirements for releases of credits. These include:

- The requirement for releases to be tied to attainment of performance standards;
- That Ecology and Mitigation Bank Review Team set a schedule for the release of credits in the bank instrument; and
- It identifies the criteria that Ecology and the Mitigation Bank Review Team shall use to determine the amount of credit releases.

Caps On Credit Releases

The draft rule contains requirements and caps for credit releases. WAC 173-700-372 through 375 contain the maximum credit release amounts for different stages of bank site development. These stages include:

- Pre-construction
- Post-construction
- Attainment of hydrology
- Final credit release

For banks including preservation of wetlands, credits generated by the preservation of existing wetlands or aquatic resources can be released after:

- The ownership of the site has been secured;
- The site has been protected (under a conservation easement or other approved real estate mechanism)
- Financial assurances for short and long term management have been posted ; and
- The bank instrument has been signed.

Other releases may be allowed up to the top limits listed in the rule based on:

- The likelihood of success of the site
- The experience of the entity designing and constructing the bank
- The level of anticipated gains at the bank site at each stage of release.

4.4.4 Rationale for Rule Language

Holding all credits in a bank until the bank is fully successful would provide the greatest benefits and the least risk to the environment (Brumbaugh and Reppert 1994, King et al. 1993). This approach is often purported as the preferred approach to credits being released over time. It is not a practical approach, however (Shabman et al. 1994), and several factors support the incremental releases of credit prior to full success of the bank.

First, concurrent mitigation allows the complete release of credit prior to the full success of a site. Additionally, under existing regulatory practices, an authorized impact to a wetland usually occurs prior to the required compensatory mitigation site even being constructed.

Commonly, concurrent mitigation is "credited" and available for use when the permit is issued. If some credits are not released during the development of the bank, there is a significant disincentive to establish a bank, rather than continuing to rely on concurrent mitigation.

Mitigation bank permitting requires the bank sponsor to commit significant capital during the permitting process, which in some cases can take over two years to complete.

Without some early release of credits, bank sponsors must carry all of the costs of permitting, constructing and monitoring a bank for an extended period, hoping they will recoup all of their costs plus a return on their investment (Shabman et al. 1994). Public banks that do not need to show a profit may be able to make these substantial long-term investments, but such an approach is difficult for private, market-based banks (Shabman et al. 1998). The National Mitigation Banking Study noted that while the risks of failure might prompt regulators to require full success prior to the release of credits, the private market system would not be able to bear the costs associated with full maturation of the bank (Shabman et al. 1994). The market would not bear the true costs of successful mitigation as reflected in the price of credits (Shabman et al. 1998). Developers would always choose concurrent mitigation because of the lower cost. Costs of concurrent mitigation are lower because:

- The is a low risk that the developer will be required to correct failed sites
- The return on the mitigation investment is immediate (the development project occurs concurrently with the mitigation)
- Long-term maintenance costs are rarely included (or required)
- The regulatory process is much shorter and hence less expensive.

Mitigation bankers must be able to sell or use portions of the credits in a bank prior to full success in order to have a level playing field with concurrent mitigation and to allow for some recouping of the initial investment in the bank.

As noted in a recent mitigation banking study (Battelle 1998), funding to initiate and complete a wetland mitigation bank project is one of the primary limiting factors for implementation of banking programs. If bank sponsors are required to wait until their site is fully functional (five years or more) before they can begin to realize a return on their investment, the financial risks associated with banking are more likely to outweigh any potential benefits.

Alternatively, the release of too many credits too early in the development of a bank could result in overdrafts or unmitigated impacts if credits are withdrawn and the bank is not able to successfully attain the agreed-upon goals and objectives (Goldman-Carter and McCallie 1996).

While early release of bank credits can result in increased risk to the environment, the amount of risk can be minimized through several mechanisms. Some risk management techniques include:

- Ensuring that performance standards for early release reflect some level of environmental gain
- Requiring monitoring to document attainment of performance standards
- Limiting the number of credits released commensurate with the level of ecological gains at the site

- Requiring financial assurances to cover the costs of repairing a bank site if it fails to develop as expected.

In order to ensure that early release of credits does not result in undue risk of environmental losses, the timing and release of credits should reflect increases in ecological benefits at a bank site (*Federal Guidance* 1995). Therefore, tying the release of credits to attainment of specific performance standards that reflect the ecological gains and performance of functions at a site will ensure that the credits represent some level of ecological increase over existing conditions. In this way, releasing fewer credits up front would reduce the environmental risks for banks that have higher risk of failure. Withholding a larger percentage of the potential credits in a bank would provide a greater incentive for a bank sponsor to monitor and actively work on the bank's successful development. Adaptive management actions could be rewarded with additional releases of credits after management activities are completed.

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Glossary

Bank or **wetland mitigation bank** means a site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

Bank instrument means the documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The "bank instrument" describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

Bank sponsor means any public or private entity responsible for establishing and, in most circumstances, operating a bank.

Buffer means those areas surrounding a bank site that enhance and protect a wetland's functions and values by maintaining adjacent habitat and reducing adverse impacts from adjacent land-uses.

Compensatory mitigation means the restoration, creation, enhancement or in exceptional circumstances, preservation of wetlands or other aquatic resources, or both, for the purpose of compensating for unavoidable adverse impacts to wetlands or other aquatic resources which remain after all appropriate and practicable avoidance and minimization has been achieved.

Cowardin class means the classification of a wetland area as described in *Classification of Wetlands and Deepwater Habitats of the United States* U.S. Fish and Wildlife Service publication FWS/OBS 79/31.

Creation means the establishment of wetland area, functions, and values in an area where none previously existed.

Credit means a unit of trade representing the increase in the ecological value of the site, as measured by acreage, functions, and values, or by some other assessment method.

Debit project means those projects that use credits from a wetland mitigation bank to fulfill regulatory requirements for compensation of impacts to aquatic resources. A debit project may require more than one regulatory approval under federal, state and local rules.

Ecoregions means those areas that are considered to be regions of relative homogeneity in ecological systems or in relationships between organisms and their environments.

Enhancement means actions taken within an existing degraded wetland or other aquatic resource to increase or augment one or more functions or values. Enhancement can also include actions taken to improve the functions provided by a buffer or upland area.

Financial assurance means the money or other form of financial instrument (for example surety bonds, trust funds, escrow accounts, proof of stable revenue sources for public agencies) required of the sponsor to ensure that the functions of the subject bank are achieved and maintained over the long-term in accordance with the terms and conditions of the bank instrument.

Function assessment means an assessment of the degree to which a wetland is performing, or is capable of performing, specific wetland functions. Function assessments include the use of scientifically-based quantitative and qualitative methods developed for assessing functions, as well as the use of best professional judgement for determining the degree to which a wetland or other habitat is performing, or is capable of performing, specific functions.

Hydrogeomorphic (HGM) classification means a wetland classification scheme that groups wetlands based on their geomorphic setting and water regime.

Mitigation bank review team means an interagency group of federal, state, tribal and local regulatory and resource agency representatives that are invited to participate in negotiations with the bank sponsor on the terms and conditions of the bank instrument.

Mitigation bank review team process means a process in which the department strives to reach consensus with the Mitigation Bank Review Team members on the terms, conditions, and procedural elements of the bank instrument.

Off-site means outside of the area from where the impact has occurred.

Out-of-kind means species, habitat types and/or functions that are different than those at the impact site.

Performance standards are measurable benchmarks for a specific project objective. Performance standards are usually designed to allow evaluation of the development of ecological characteristics associated with specific wetland functions.

Preservation means the permanent protection of ecologically important wetlands or other aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation may include protection of upland areas adjacent to wetlands as necessary to ensure protection or enhancement of the aquatic systems, or both.

Prospectus is the conceptual proposal for a mitigation bank project.

Restoration means actions taken to intentionally re-establish wetland area, function and values at a site where wetlands previously existed, but are no longer present because of the lack of water or hydric soils. Restoration can also include the re-establishment of historic wetland HGM classes on sites that have been altered due to human activities to a different HGM class, and which are significantly degraded with low levels of functions and values.

Service area means the designated geographic area in which a bank can reasonably be expected to provide appropriate compensation for unavoidable impacts to wetlands.

Signatories means those entities that have documented their approval of the terms and conditions of the bank instrument through their signature on the bank instrument.

Water resource inventory areas or **WRIA** refers to the sixty-two water resource divisions of the state as described in WAC 173-500, Water Resources Management Program Established Pursuant to the Water Resources Act of 1971, as amended.

Wetland or **wetlands** mean areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetland mitigation bank or **bank** means a site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

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Appendix B: Chapter 90.84 RCW - Wetland Mitigation Banking

CHAPTER 90.84 RCW
WETLANDS MITIGATION BANKING

Sections

RCW 90.84.005 Findings--Purpose--Intent.

(1) The legislature finds that wetlands mitigation banks are an important tool for providing compensatory mitigation for unavoidable impacts to wetlands. The legislature further finds that the benefits of mitigation banks include:

(a) Maintenance of the ecological functioning of a watershed by consolidating compensatory mitigation into a single large parcel rather than smaller individual parcels;

(b) increased potential for the establishment and long-term management of successful mitigation by bringing together financial resources, planning, and scientific expertise not practicable for many project-specific mitigation proposals;

(c) increased certainty over the success of mitigation and reduction of temporal losses of wetlands since mitigation banks are typically implemented and functioning in advance of project impacts;

(d) potential enhanced protection and preservation of the state's highest value and highest functioning wetlands;

(e) a reduction in permit processing times and increased opportunity for more cost-effective compensatory mitigation for development projects; and

(f) the ability to provide compensatory mitigation in an efficient, predictable, and economically and environmentally responsible manner.

Therefore, the legislature declares that it is the policy of the state to authorize wetland mitigation banking.

(2) The purpose of this chapter is to support the establishment of mitigation banks by:

(a) Authorizing state agencies and local governments, as well as private entities, to achieve the goals of this chapter; and

(b) providing a predictable, efficient, regulatory framework, including timely review of mitigation bank proposals. The legislature intends that, in the development and adoption of rules for banks, the department establish and use a collaborative process involving interested public and private entities. [1998 c 248 § 1.]

RCW 90.84.010 Definitions.

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1)"Banking instrument" means the documentation of agency and bank sponsor concurrence on the objectives and administration of the bank that describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

(2) "Bank sponsor" means any public or private entity responsible for establishing and, in most circumstances, operating a bank.

(3) "Credit" means a unit of trade representing the increase in the ecological value of the site, as measured by acreage, functions, and/or values, or by some other assessment method.

(4) "Department" means the department of ecology.

(5) "Wetlands mitigation bank" or "bank" means a site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.

(6) "Mitigation" means sequentially avoiding impacts, minimizing impacts, and compensating for remaining unavoidable impacts.

(7) "Practicable" means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

(8) "Service area" means the designated geographic area in which a bank can reasonably be expected to provide appropriate compensation for unavoidable impacts to wetlands.

(9) "Unavoidable" means adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved. [1998 c 248 § 3.]

RCW 90.84.020 Wetlands or wetlands banks--Authority for regulating.

This chapter does not create any new authority for regulating wetlands or wetlands banks beyond what is specifically provided for in this chapter. No authority is granted to the department under this chapter to adopt rules or guidance that apply to wetland projects other than banks under this chapter. [1998 c248 § 2.]

RCW 90.84.030 Rules--Submission of proposed rules to legislative committees.

Subject to the requirements of this chapter, the department, through a collaborative process, shall adopt rules for:

(1) Certification, operation, and monitoring of wetlands mitigation banks. The rules shall include procedures to assure that:

(a) Priority is given to banks providing for the restoration of degraded or former wetlands;

(b) Banks involving the creation and enhancement of wetlands are certified only where there are adequate assurances of success and that the bank will result in an overall environmental benefit; and

(c) Banks involving the preservation of wetlands or associated uplands are certified only when the preservation is in conjunction with the restoration, enhancement, or creation of a wetland, or in other exceptional circumstances as determined by the department consistent with this chapter;

(2) Determination and release of credits from banks. Procedures regarding credits shall authorize the use and sale of credits to offset adverse impacts and the phased release of credits as different levels of the performance standards are met;

(3) Public involvement in the certification of banks, using existing statutory authority;

(4) Coordination of governmental agencies;

(5) Establishment of criteria for determining service areas for each bank;

(6) Performance standards; and

(7) Long-term management, financial assurances, and remediation for certified banks.

Before adopting rules under this chapter, the department shall submit the proposed rules to the appropriate standing committees of the legislature. By January 30, 1999, the department shall submit a report to the appropriate standing committees of the legislature on its progress in developing rules under this chapter. [1998 c248 § 4.]

RCW 90.84.040 Certification of banks--Approval of use of credits by state and local governments.

(1) The department may certify only those banks that meet the requirements of this chapter. Certification shall be accomplished through a banking instrument. The local jurisdiction in which the bank is located shall be signatory to the banking instrument.

(2) State agencies and local governments may approve use of credits from a bank for any mitigation required under a permit issued or approved by that state agency or local government to compensate for the proposed impacts of a specific public or private project. [1998 c 248 § 5.]

RCW 90.84.050 Approval of use of credits by the department--Requirements.

Prior to authorizing use of credits from a bank as a means of mitigation under a permit issued or approved by the department, the department must assure that all appropriate and practicable steps have been undertaken to first avoid and then minimize adverse impacts to wetlands. In determining appropriate steps to avoid and minimize adverse impacts to wetlands, the department shall take into consideration the functions and values of the wetland, including fish habitat, ground water quality, and protection of adjacent properties. The department may approve use of credits from a bank when:

(1) The credits represent the creation, restoration, or enhancement of wetlands of like kind and in close proximity when estuarine wetlands are being mitigated;

(2) There is no practicable opportunity for on-site compensation; or

(3) Use of credits from a bank is environmentally preferable to on-site compensation. [1998 c 248 § 6.]

RCW 90.84.060 Interpretation of chapter and rules.

The interpretation of this chapter and rules adopted under this chapter must be consistent with applicable Federal Guidance for the establishment, use, and operation of wetlands mitigation banks as it existed on June 11, 1998, or such subsequent date as may be provided by the department by rule, consistent with the purposes of this chapter. [1998 c 248 § 7.]

RCW 90.84.070 Application to public and private mitigation banks.

This chapter applies to public and private mitigation banks. [1998 c 248 § 8.]

RCW 90.84.900 Severability--1998 c 248.

If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected. [1998 c 248 § 9.]

Appendix C: WAC 173-700
The Draft Rule

Chapter 173-700 WAC
WETLAND MITIGATION BANKS

PART VI
USE OF WETLAND BANK CREDITS

PART VII
COMPLIANCE WITH CERTIFICATION

PART VIII
ROLES AND RESPONSIBILITIES

PART IX
APPEALS

PART I

OVERVIEW

173-700-010 Background (1) The Wetlands Mitigation Banking Act, Chapter 90.84 RCW, sets forth fundamental elements of a mitigation banking policy to ensure that a predictable, statewide process exists for certifying environmentally sound wetland mitigation banks.

(2) The act finds wetland mitigation banking an important regulatory tool for providing compensatory mitigation for unavoidable impacts to wetlands and declares it the policy of the state to support wetland mitigation banking. The act directs the department of ecology (the department) to adopt rules establishing a statewide process for certifying wetland mitigation banks.

(3) The department anticipates that wetland mitigation banks will provide some compensatory mitigation in advance of impacts to wetlands and will consolidate compensatory mitigation into larger contiguous areas for regionally significant ecological benefits.

(4) Wetland mitigation banks (banks) prioritize restoration of wetland functions and as such should be complementary to the restoration of ecosystems and ecosystem processes as identified in state or locally adopted science-based watershed management plans.

173-700-020 Purpose (1) This rule is intended to facilitate wetland mitigation banking by providing an efficient, predictable statewide framework for the certification and operation of environmentally sound wetland mitigation banks. In addition, this rule sets out to accomplish the following:

(a) Provide a systematic approach for reviewing and approving environmentally sound wetland mitigation banks;
(b) Provide for the timely review of bank proposals;
(c) Establish coordination among state and local agencies involved in the certification and approval of banks;
(d) Avoid duplication with federal processes by encouraging early involvement with federal agencies; and
(e) Provide incentives to encourage bank sponsors to locate and design banks that provide the greatest ecological benefits.

(2) The purpose of this rule is to support the establishment of wetland mitigation banks as an important tool for providing compensatory wetland mitigation by authorizing state agencies, local governments and private entities to achieve the goals of the authorizing statute, Chapter 90.84 RCW.

173-700-030 Integrating banks with watershed planning (1) This rule should facilitate the establishment and operation of wetland mitigation banks that are integrated with local land-use plans and science-based watershed or sub-watershed management plans.

(2) Local and state agencies are encouraged to use wetland mitigation banks as a useful tool for implementing watershed management plans. Wetland banks can restore habitats and functions that are priorities within the watershed.

(3) Wetland banks should experience an expedited review process when they are established as part of a science-based resource management program, which has been endorsed by state and federal resource agencies.

173-700-040 Applicability This rule applies to private and public wetland mitigation banks established under Chapter 90.84 RCW.

PART II

DEFINITIONS
173-700-100 Definitions

"**Aquatic Resources**" means those areas where the presence and movement of water is a dominant process affecting their development, structure, and functioning. Aquatic resources may include, but are not limited to, vegetated and non-vegetated wetlands or aquatic sites (e.g. mudflats, deepwater habitats, lakes and streams).

"**As-built plans**" means a document, that describes the physical, biological and, if required, the chemical condition of a compensatory bank site after complete implementation of each phase of an approved construction plan.

"**Available credits**" means those credits that have been released by the department and can be used. Available credits do not include credits that have been debited (used for a permit requirement) from the bank.

"**Bank**" or "**wetland mitigation bank**" means a site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

"**Bank instrument**" means the documentation of agency and bank sponsor concurrence on the objectives and administration of the bank. The "bank instrument" describes in detail the physical and legal characteristics of the bank, including the service area, and how the bank will be established and operated.

"**Bank sponsor**" means any public or private entity responsible for establishing and, in most circumstances, operating a bank.

"**Buffer**" means those areas surrounding a bank site that enhance and protect a wetland's functions and values by maintaining adjacent habitat and reducing adverse impacts from adjacent land-uses.

"**Compensatory mitigation**" means the restoration, creation, enhancement or in exceptional circumstances, preservation of wetlands or other aquatic resources, or both, for the purpose of compensating for unavoidable adverse impacts to wetlands or other aquatic resources which remain after all appropriate and practicable avoidance and minimization has been achieved.

“**Consensus**” means a process by which a group synthesizes its ideas and concerns to form a common collaborative agreement acceptable to all members. While the primary goal of consensus is to reach agreement on an issue by all parties, unanimity may not always be possible.

“**Contingency actions**” means actions taken during the operational life of a bank site to correct any deficiencies on the site in order for the site to attain the required performance standards.

“**Cowardin class**” means the classification of a wetland area as described in *Classification of Wetlands and Deepwater Habitats of the United States* USFWS publication FWS/OBS 79/31.

"**Creation**" means the establishment of wetland area, functions, and values in an area where none previously existed.

"**Credit**" means a unit of trade representing the increase in the ecological value of the site, as measured by acreage, functions, and values, or by some other assessment method.

“**Debit project**” means those projects that use credits from a wetland mitigation bank to fulfill regulatory requirements for compensation of impacts to aquatic resources. A debit project may require more than one regulatory approval under federal, state and local rules.

"**Department**" means the department of ecology.

"**Ecoregions**" means those areas that are considered to be regions of relative homogeneity in ecological systems or in relationships between organisms and their environments.

"**Enhancement**" means actions taken within an existing degraded wetland or other aquatic resource to increase or augment one or more functions or values. Enhancement can also include actions taken to improve the functions provided by a buffer or upland area.

"**Financial assurance**" means the money or other form of financial instrument (for example surety bonds, trust funds, escrow accounts, proof of stable revenue sources for public agencies) required of the sponsor to ensure that the functions of the subject bank are achieved and maintained over the long-term in accordance with the terms and conditions of the bank instrument.

"**Function assessment**" means an assessment of the degree to which a wetland is performing, or is capable of performing, specific wetland functions. Function assessments include the use of scientifically-based quantitative and qualitative methods developed for assessing functions, as well as the use of best professional judgement for determining the degree to which a wetland or other habitat is performing, or is capable of performing, specific functions.

"**Hydrogeomorphic (HGM) classification**" means a wetland classification scheme that groups wetlands based on their geomorphic setting and water regime.

"**Local jurisdiction**" means any local government such as a town, city, or county.

"**Mitigation**" means sequentially avoiding impacts, minimizing impacts, and compensating for remaining unavoidable impacts to wetlands.

"**Mitigation bank review team**" or "**MBRT**" means an interagency group of federal, state, tribal and local regulatory and resource agency representatives that are invited to participate in negotiations with the bank sponsor on the terms and conditions of the bank instrument.

"**Mitigation bank review team process**" or "**MBRT Process**" means a process in which the department strives to reach consensus with the MBRT members on the terms, conditions, and procedural elements of the bank instrument.

"**Operational life**" or "**operational life of a bank**" means the period during which the terms and conditions of the bank instrument are in effect. With the exception of arrangements for the long-term management, permanent protection, and financial assurances, the operational life of a mitigation bank terminates at the point when:

(a) Compensatory mitigation credits have been exhausted and the debited bank is determined to be functionally mature and self-sustaining to the degree specified in the bank instrument; or

(b) The bank sponsor voluntarily terminates the banking activity with written notice to the department.

"**Performance standards**" are measurable benchmarks for a specific project objective. Performance standards are usually designed to allow evaluation of the development of ecological characteristics associated with specific wetland functions.

“**Potential credits**” mean the credits anticipated to be provided at a bank site, but which are not available for use. Once potential credits are released by the department, they convert to available credits.

"**Practicable**" means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

"**Preservation**" means the permanent protection of ecologically important wetlands or other aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation may include protection of upland areas adjacent to wetlands as necessary to ensure protection or enhancement of the aquatic systems, or both.

"**Prospectus**" is the conceptual proposal for a mitigation bank project.

"**Restoration**" means actions taken to intentionally re-establish wetland area, function and values at a site where wetlands previously existed, but are no longer present because of the lack of water or hydric soils. Restoration can also include the re-establishment of historic wetland HGM classes on sites that have been altered due to human activities to a different HGM class, and which are significantly degraded with low levels of functions and values.

"**Service area**" means the designated geographic area in which a bank can reasonably be expected to provide appropriate compensation for unavoidable impacts to wetlands.

“**Signatories**” means those entities that have documented their approval of the terms and conditions of the bank instrument through their signature on the bank instrument.

“**Sustainability**” means the ability of the aquatic system to be self-maintaining and self-regulating. Sustainable bank sites must have sufficient buffer areas to protect the site from degradations due to activities on adjacent lands.

"**Unavoidable**" means adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

"**Water resource inventory areas**" or "**WRIA**" refers to the sixty-two water resource divisions of the state as described in Chapter 173-500 WAC, Water Resources Management Program Established Pursuant to the Water Resources Act of 1971, as amended.

"**Wetland**" or "**wetlands**" mean areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

"**Wetland mitigation bank**" or "**bank**" means a site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved, expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to aquatic resources.

PART III

CERTIFICATION PROCESS

173-700-200 How does certification relate to other rules? (1) Many federal, state, and local laws and rules and treaty rights relate to the establishment of a compensatory wetland mitigation bank.

(2) Mitigation banks certified under this rule must be consistent with existing federal, state and local laws and rules.

(3) Certification of a wetland bank does not serve as authorization for other federal, state or local permits or approvals.

(4) Mitigation Bank Review Team (MBRT) members shall advise the bank sponsor of pertinent federal state or local rules that may apply to a specific bank proposal and that may delay the certification process.

173-700-201 Why have a certification process? The department must certify banks to ensure that they are technically feasible, environmentally sound, and in compliance with this rule.

173-700-202 Overview of the wetland mitigation bank certification process (1) The certification process for wetland mitigation banks contains two parts. The first part is a pre-application process followed by a formal application process.

(2) The ***pre-application process*** begins when a bank sponsor submits a prospectus to the department.

(3) The department convenes a Mitigation Bank Review Team (MBRT) after determining that the prospectus contains sufficient information.

(4) The MBRT reviews and evaluates the bank prospectus and provides comments to the bank sponsor on the proposed bank.

(5) The bank sponsor develops a bank instrument using the comments provided by the MBRT on the prospectus.

(6) The ***formal application process*** begins when the bank sponsor submits a certification application and bank instrument to the department.

(7) The department determines if the application is complete.

(8) The department reconvenes the MBRT to review the complete application.

(9) The department begins the public comment period under WAC 173-700-232.

(10) The department issues a certification decision and notifies the local jurisdiction(s) in which the bank is located of that decision.

(11) The local jurisdiction(s) reviews the certification decision and determines whether it concurs with the department's decision.

(12) ***Certification is complete*** when the department, the local jurisdiction(s), and the bank sponsor all sign the bank instrument.

173-700-203 Decision-making procedure (1) All decisions rendered by the department must fully consider MBRT and public comments submitted as part of the certification evaluation process.

(2) The MBRT shall strive to achieve *consensus* on the terms and conditions of bank instruments.

(3) If the department determines that consensus cannot otherwise be reached on any term, condition, or procedural element of the bank instrument within a reasonable timeframe, the department shall be responsible for making final decisions regarding the terms and conditions of the bank instrument.

(4) Advisory members of the Mitigation Bank Review Team may participate in MBRT discussions, however they may not participate in the decision-making of the MBRT. See WAC 173-700-732.

173-700-204 Dispute resolution (1) In the event that the MBRT is unable to reach consensus on any element of the bank certification, the department shall initiate the dispute resolution procedure under WAC 173-700-205.

(2) The department shall make every effort to resolve disputes within the MBRT forum before the conflict is elevated to the program manager of the department's Shorelands and Environmental Assistance Program.

173-700-205 Dispute resolution procedure The department shall use the following dispute resolution procedure for resolving concerns from members of the MBRT.

(1) The MBRT member(s) who has concerns with a particular decision or element of a bank certification shall submit the concern and accompanying rationale in writing to the chair(s) of the MBRT.

(2) The chairs(s) of the MBRT shall outline the majority position on the area of concern and shall work with the MBRT member(s) to develop potential solutions to the member's concerns.

(3) The chair(s) of the MBRT shall present potential solutions to the MBRT and the MBRT shall work to resolve the concern.

(4) In the event that the MBRT is unable to resolve the concern, the MBRT member with the concern shall secure and pay for a facilitator to assist the MBRT in resolving the conflict.

(5) In the event that the MBRT is still unable to reach consensus, the MBRT member with the concern may request, through written notification, that the department's program management reviews the issue. Such a notification must include:

(a) A detailed description of the issue, and
(b) Recommendations for resolution.

(6) The written notification must be directed to the program manager of the Shorelands and Environmental Assistance Program or the program manager's designee. Within twenty days of receipt of a notification, the program manager, or its designee, shall contact the MBRT member and shall make a final decision. The resolution shall be forwarded to the other MBRT members.

173-700-220 Pre-application process (1) The bank sponsor must submit a prospectus, consistent with the requirements in WAC 173-700-223, to the department.

(2) The department must determine whether the prospectus contains enough information to form a Mitigation Bank Review Team (MBRT).

(a) If the department determines that the prospectus is not sufficient: the department shall notify the bank sponsor and identify any additional information necessary to complete the prospectus.
(b) If the department determines that the prospectus is sufficient, the department shall notify the local jurisdiction(s) and invite it to co-chair the MBRT.
(c) If the prospectus is sufficient, the department must invite representatives from the appropriate federal, state, and local regulatory and resource agencies, and tribes to participate on the MBRT. The department may invite advisory members to the MBRT under WAC 173-700-732

(3) The bank sponsor must send the department enough copies of the prospectus for all of the members of the MBRT.

(4) At least two weeks before a MBRT meeting, the department must send the prospectus to all agencies and tribes participating on the MBRT.

173-700-221 MBRT review of the prospectus (1)The MBRT shall strive to meet within sixty days of when the department notifies it of a new bank prospectus.

(2) The MBRT must meet to evaluate the technical and regulatory feasibility of a prospectus.

(3) The members of the MBRT shall provide comments to the department and the bank sponsor on the bank prospectus. Comments should include:

(a) The technical feasibility of the bank proposal;
(b) Its compliance with existing rules and ordinances;
(c) Any applicable permits or authorizations necessary for bank construction; and

(d) Any additional information necessary for the draft bank instrument, such as supporting studies and other documentation.

(4) The bank sponsor must use the comments received from the MBRT to develop a bank instrument, which is consistent with the requirements in WAC 173-700-240 and WAC 173-700-241.

(5) After completing the bank instrument, the sponsor may formally apply for wetland bank certification under WAC 173-700-230.

173-700-222 Purpose of the prospectus (1) The purpose of the prospectus is to provide a conceptual plan for a wetland mitigation bank proposal.

(2) The prospectus initiates dialogue with the department and MBRT members on a proposed bank.

(3) A prospectus must contain sufficient information to allow the department and the MBRT to provide feedback to the bank sponsor on whether the bank project is technically feasible and complies with existing state and local rules. Necessary information includes discussions of the proposed goals and objectives, the construction, and operation of the proposed bank.

173-700-223 Content of the prospectus At a minimum, the prospectus must contain information on the following elements:

(1) The goals and objectives of the project;

(2) Site location information, including a detailed map with sufficient information to accurately identify site location, such as legal description and proximity to existing roads;

(3) The rationale for site selection addressing the considerations listed in WAC 173-700-320;

(4) A description of existing conditions of the proposed site(s) including, but not limited to:

(a) Land ownership;
(b) The landscape position of the site;
(c) Site size;
(d) Wetlands present on the site;
(e) Other habitat types present on the site;
(f) Available information on water sources, soils, and vegetation; and
(g) A preliminary analysis of functions provided by on-site wetlands;

(5) Conceptual site design, including but not limited to:
(a) Proposed types and approximate sizes of wetlands;
(b) Other proposed habitat types to be provided on the site; and
(c) Proposed functions that the bank is anticipated to provide;

(6) Potential adverse impacts to aquatic resources or other habitats from bank construction;

(7) Proposed service area and accompanying rationale that demonstrates that the service area is ecologically appropriate;

(8) Anticipated potential credits to be generated by the bank;

(9) Discussion of whether water rights have been applied for or secured for the site, if needed;

(10) Demonstration of adequate financial resources for the construction, operation, and long-term management of the bank site; and

(11) Description of proposed permanent protection mechanism, such as a conservation easement.

173-700-224 Optional MBRT pre-application meetings (1) If a bank sponsor wants assistance from the MBRT during the drafting of a bank instrument, the bank sponsor may request that the department schedule an additional meeting(s) with the MBRT.

(2) If additional meetings are requested, the bank sponsor must submit to the department a draft bank instrument, consistent with the requirements of WAC 173-700-241, and sufficient copies of the instrument for distribution to the MBRT members.

(3) The department must reconvene the MBRT if:

(a) The sponsor requests another meeting with the MBRT;

(b) The bank sponsor submits a complete draft bank instrument with sufficient copies for the MBRT members to the department; and
(c) The department determines that the new draft bank instrument warrants another meeting with the MBRT.

(4) The MBRT shall provide comments to the department and the bank sponsor regarding any terms and conditions required for the bank instrument.

173-700-230 Formal application phase (1) The bank sponsor shall submit a complete certification application to the department.

(2) A complete application consists of the following:

(a) A completed wetland bank certification application form;
(b) A draft bank instrument consistent with the requirements of WAC 173-700-241;
(c) A completed checklist under RCW Chapter 43.21C, the State Environmental Policy Act;
(d) A Joint Aquatic Resources Permit Application (JARPA), if necessary; and
(e) Other supporting information as required by the department through the MBRT process. This supporting information may include, but is not limited to:
(i) Financial assurance documents;
(ii) Legal mechanisms for the permanent protection of the bank site; and
(iii) Hydrologic and other ecological studies.

173-700-231 What happens after an application is submitted? (1) After receiving the application, the department shall determine whether the application is complete.

(a) If the department determines that the application is not complete, the department shall notify the bank sponsor of its determination and identify any additional information that is necessary to complete the application.
(b) If the department determines that the application is complete, the department shall notify the bank sponsor of its determination and assign a bank application number to the application.

(2) After the department notifies the bank sponsor that the application is complete, the bank sponsor must submit to the department sufficient copies of the draft bank instrument for distribution to MBRT members.

173-700-232 Review of the application (1) Upon determining the application is complete and after receiving sufficient copies of the bank instrument from the bank sponsor, the department must notify and reconvene the MBRT.

(2) After determining that the application is complete, the department must also initiate the public notification, review, and comment process under WAC 173-700-252 through WAC 173-700-255.

(3) The MBRT shall review the draft bank instrument and provide comments to the department and the bank sponsor on the technical requirements, terms, and conditions of the proposed certification.

173-700-233 Department's certification decision (1) After the public comment period closes and the MBRT has concluded the review of the proposal, the department must:

(a) Notify the bank sponsor of all recommendations and comments received from the MBRT and the public;
(b) Identify any additional information that the sponsor must submit in order for the department to make a certification decision; and
(c) Identify additional terms and conditions required as part of the certification.

(2) If the department requests additional information:
(a) The certification process shall stop until the information is received and approved by the department; and
(b) The department may reconvene the MBRT or reopen the public comment period if the department determines that the bank instrument has changed substantially.

(3) After review of the application is complete, the department shall issue a certification decision.

(4) The department shall indicate its approval of certification by signing the bank instrument. After signing the bank instrument, the department must notify the local jurisdiction and request its concurrence on the certification.

(5) If the application is denied, the department must send a notification to the bank sponsor and to the local jurisdiction in which the proposed bank is located. The notification must state the reasons for denial.

173-700-234 Local jurisdiction's certification decision (1) After receipt of the department's decision to approve certification, the local jurisdiction(s) in which the bank will be located shall review the certification decision.

(2) If the local jurisdiction(s) concurs with the bank certification, it must sign the bank instrument.

(3) If the local jurisdiction(s) does not concur with the certification, the local jurisdiction must send a notification to the bank sponsor and the department of its decision. The notification must state the reasons for the local jurisdiction's non-concurrence.

(4) If the local jurisdiction(s) does not concur with the certification, the department may not certify the bank.

173-700-235 Signatories of the bank instrument (1) A bank instrument must contain signatures from the department, the local jurisdiction(s) in which the bank will be located, and the bank sponsor for certification to be complete.

(2) No agency, except for the department and the local jurisdiction in which the bank is located, is required to sign a bank instrument in order for certification to be complete. However, MBRT member agencies and tribes are encouraged to sign a bank instrument to document their concurrence with the terms and conditions of the certification.

(3) If any other agency or tribe signs the bank instrument, it shall signify that entity's concurrence with the terms of the bank instrument.

173-700- 240 The bank instrument (1) A bank instrument details all of the physical characteristics, legal obligations, operational procedures, monitoring, and maintenance requirements for a wetland mitigation bank.

(2) Requirements for bank instruments vary based on the specific conditions of the bank site and should be developed in cooperation with the MBRT.

(3) The bank sponsor must develop the bank instrument using feedback from the MBRT on the prospectus and, if applicable, MBRT comments on a preliminary draft bank instrument.

173-700-241 Contents of the bank instrument The minimum elements required in the bank instrument are:

(1) A statement of bank goals and objectives;

(2) Documentation of the ownership of bank lands, including a legal description and map of the bank site and surrounding areas;

(3) A detailed description of bank sponsor responsibilities for construction implementation, monitoring and reporting, maintenance, and credit tracking and reporting;

(4) A description and map of the geographic service area;

(5) The potential number of credits to be generated by the bank and a credit description consistent with WAC 173-700-350;

(6) A description of the types of impacts to wetlands or other aquatic resources suitable for compensation and any restrictions on uses of credits;

(7) A detailed description of the proposed bank including, but not limited to:

(a) The bank size;
(b) The landscape position of the site;
(c) The Cowardin and HGM classes and sizes of wetlands and aquatic resources proposed for the bank;
(d) A description of the buffers for the site and any other habitats provided on the site;
(e) The functions and values to be provided by the bank;
(f) Detailed site design plans and specifications to include grading plans, planting plans, and specifications for any structures; and
(g) Construction timing and schedules;

(8) A description of existing ecological baseline conditions at the bank site, including supporting documentation requested by the department, through the MBRT process. The description must include, at a minimum:

(a) Technical data on water sources and soils;
(b) Wetlands present on the site;
(c) Other habitat types present on the site;
(d) Existing vegetation communities; and
(e) Analysis of functions provided by on-site wetlands;

(9) Documentation of water rights for the proposed bank, if required;

(10) Credit tracking and accounting procedures, including reporting requirements;

(11) Performance standards for determining credit release and bank success, including a schedule for the phased release of credits;

(12) Reporting protocols and monitoring plan, including a clear statement of responsibility for conducting monitoring and for reporting;

(13) A contingency plan and statement of responsibility for contingency actions;

(14) Appropriate financial assurances;

(15) Provisions for short-term and long-term management and maintenance, including a description of anticipated management and maintenance activities;

(16) Provisions for permanent protection of the property on which the bank will be located; and

(17) Force Majeure Clause (identification of sponsor responsibilities in the event of catastrophic events that are beyond the sponsor's control).

173-700-250 Public involvement (1) It is the department's goal to ensure that accurate certification information is made available to the public in a timely manner, and to avoid duplicative processes for public involvement.

173-700-251 Public outreach Applicants are strongly encouraged to solicit public input during the pre-application phase of bank certification.

173-700-252 Joint public notices (1) The department shall use existing public processes, whenever possible, to obtain public comment on a proposed bank certification. When an existing process is available to solicit public comment on a certification, the department shall strive to provide a joint public notice.

(2) The public notice for bank certification must include the information under WAC 173-700-253 and WAC 173-700-254.

(3) When an existing public notification process for the proposal is not available, the department shall issue a public notice on the proposed bank certification under WAC 173-700-253 through WAC 173-700-255.

173-700-253 Notifying the public of certification applications The department must notify the public of an application for certification. Public notice for the wetland bank certification shall include:

(1) Name and address of the department staff contact for information on the certification application;

(2) Name and address of the bank sponsor;

(3) A description of the bank proposal including, but not limited to, the following information:

(a) The location of the proposed bank site;
(b) The types of wetlands to be restored, enhanced, created or preserved on the bank site;
(c) The number and types of credits proposed;
(d) The service area proposed for the bank; and
(e) The credit release schedule proposed for the bank;

(4) Name, address, and telephone number of a person from whom interested persons may obtain further information, such as copies of the application, the draft bank instrument and supporting materials; and

(5) A brief description of the comment procedures, including:

(a) The time and place of any hearings scheduled for the certification;

(b) Where comments should be sent;
(c) The closing date for receiving comments; and
(d) The procedures to request a hearing.

173-700-254 Who is notified of an application? At a minimum, the department shall notify the following members of the public of the application for certification:

(1) Local and tribal governments located within the proposed service area, other interested persons and organizations that have requested information on wetland bank certifications, and all others deemed appropriate by the department;

(2) The latest recorded real property owners located within 300 feet of the boundaries of the property upon which the wetland bank site is proposed, as shown by the records of the county treasurer; and

(3) The general public within a bank's proposed service area through:

(a) A published notice in a newspaper of general circulation in the service area of the proposed bank and in other counties as deemed appropriate, and
(b) A notice posted in a conspicuous manner on the property upon which the proposed bank is to be located.

173-700-255 Length of comment period (1) The department must provide at least thirty-days for the public comment.

(2) Wetland banks that require an environmental impact statement may need longer comment periods.

(3) The comment period may be extended if the department holds a public hearing for a wetland bank proposal.

173-700-256 Requesting a public hearing (1) The bank sponsor, any interested government entity, any group or any person may request, in writing, a public hearing on the bank certification.

(2) The request must be received by the department before the end of the comment period specified on the public notice.

(3) Any request for a public hearing shall indicate the interest of the party filing it and why a hearing is warranted.

173-700-257 When is a public hearing held? (1) The department shall determine, in its sole discretion, if significant public interest exists to hold a public hearing.

(2) The department shall provide at least fourteen calendar days prior notice of any hearing.

173-700-258 Public records (1) The department must make available for public inspection the certification application, draft bank instrument and other supporting materials.

(2) The department shall keep a record of the comments received by the department and issues raised during the public participation process on the bank certification. Those records are available to the public.

(3) The department may not render a certification decision until the public comment period is complete.

PART IV

BANK ESTABLISHMENT – TECHNICAL REQUIREMENTS

173-700-300 Ecological design incentives (1) One of the goals of the wetland banking certification program is to encourage banks that provide significant ecological benefits. In order to achieve this, incentives have been built into the certification and bank establishment process to encourage the siting and designing of banks that provide significant ecological benefits.

(2) The incentives include, but are not limited to, more favorable credit conversion rates, higher releases of credits, and larger service areas. For each of these elements, banks that satisfy more of the decision-making criteria or that satisfy those criteria to a higher degree generally receive more favorable conditions. The department, through the MBRT process, shall make decisions regarding the application of specific incentives on a case-by-case basis.

(3) Bank sponsors should consult the following sections of this rule for criteria that the department shall use for its decision-making:

(a) Determining the amount of credit generated by a bank site under WAC 173-700-355 and WAC 173-700-357;
(b) The designation of service areas under WAC 173-700-311; and
(c)The scheduling of credit releases under WAC 173-700-372 through WAC 173-700-375.

(4) The department shall encourage, with better credit conversion rates, banks that include restoration of wetland systems and banks that provide significant habitat value because they provide connections or corridors to other natural areas.

173-700-310 Service area (1) The department, through the MBRT process, must determine the appropriate service area for proposed banks.

(2) The bank sponsor must describe and include a map of the bank's proposed service area in the draft bank instrument.

(3) The extent of the service area must be based on the functions provided by the bank and the distance from the bank site that the ecological functions can reasonably be expected to compensate for impacts to wetlands. The department must consider the hydrologic and biotic criteria as identified in WAC 173-700-311 when designating a service area.

173-700-311 Criteria for determining service area size The size of a service area must be determined based on the following elements:

(1) The functions provided by the bank;

(2) Whether and how far the ecological and hydrological benefits of the bank extend beyond the bank site location;

(3) The landscape position of the bank site within the watershed;

(4) The WRIA in which the bank is located;

(5) The ecoregion in which the requested service area is located;

(6) The ecological sustainability of the bank site;

(7) The quality, diversity, and regional significance of the habitats provided;

(8) Local needs and requirements, such as consistency with land-use or watershed management plans;

(9) Consideration of the types of impacts to wetlands or other aquatic resources that may be compensated through the use of credits from the banks; and

(10) Available information on baseline conditions in the requested service area such as that found in watershed management plans, function assessments, wetland mapping or inventories, storm water management plans, and comprehensive land use plans.

173-700-320 Site selection (1) Mitigation banks must be planned and designed to be self-sustaining over time. The department and the MBRT shall carefully consider ecological sustainability and suitability when determining if a site is an appropriate location for a mitigation bank.

(2) Considerations shall include, but are not limited to:

(a) Whether the site includes areas that can be restored to wetland conditions;

(b) Whether the site possesses the physical, chemical and biological characteristics to support the bank goals and objectives;

(c) Whether the size and location of the bank is appropriate relative to the ecological features found at the site, such as sources of water;

(d) If the bank sponsor has obtained any necessary water rights for the site, if necessary;

(e) The wetland functions and values that the site has the potential to provide;

(f) Whether the bank site can provide increased or improved wetland functions and restore ecological processes within the basin or the watershed;

(g) If the bank site has a high potential to connect or complement existing wetlands;

(h) The types of unavoidable impacts that are anticipated to use bank credits for compensatory mitigation;

(i) Whether the site and bank objectives are compatible with surrounding land-uses lying both up and down gradient;

(j) Whether the bank site can be protected over time from direct, indirect, and cumulative impacts due to current and foreseeable future land-uses;

(k) Whether the bank site is consistent with existing planning documents, such as watershed, zoning, or comprehensive land-use plans and critical areas rules;

(l) Whether the bank site contributes to the improvement of identified management problems within the drainage basin or watershed, such as sedimentation, water quality degradation, or flood control;

(m) What the historical land-uses were at that site;

(n) The presence and quantity of invasive species on the site;

(o) The existence of a native seed bank on the site;

(p) Whether the process of establishing the bank at the site will compromise ecologically significant aquatic or upland resources, cultural sites, or habitat for threatened, endangered, or candidate species; and

(q) The degree of long-term maintenance necessary for the site.

(3) The establishment and use of mitigation banks in or adjacent to areas of national, state, or regional ecological significance is encouraged if the establishment and operation of the mitigation bank does not compromise the protection or functioning of the ecologically significant areas.

173-700-330 Assessment of wetland functions (1) The sponsor must assess the ecological functions provided by the bank site based on a method specified in the bank instrument.

(2) The department may require a sponsor to use either a "best professional judgement" method for assessing wetland functions or a specific regional function assessment method

173-700-340 Minimum buffers (1) The department, through the MBRT process, must determine a minimum buffer necessary for each bank. The minimum buffer for a bank must be sufficient to protect and enhance the functions at the bank.

(2) The department must consider the following criteria when it determines a minimum buffer for a bank:

(a) The quality of the wetlands in the bank and the level of sensitivity of the wetlands to off-site activities;
(b) The functions to be provided by the bank;
(c) The quality of the buffer, (existing conditions and proposed conditions);
(d) The functions that the buffer needs to provide; and
(e) The intensity of adjacent land-uses.

(2) Minimum buffers shall generally range between 50 and 300 feet in width.

(3) The minimum buffer does not generate credit.

(4) The bank sponsor must provide at least the minimum buffer required by the department.

173-700-350 Credit description. The bank sponsor must provide a description of what the bank credits represent in the bank instrument.

(1) For credits determined using a conversion rate under WAC 173-700-353, the bank sponsor shall describe the credits in terms of acreage of: the wetland rating category; hydrogeomorphic (HGM) class, and Cowardin class of wetland. The credit description must list the ecological functions provided by the bank.

(2) For credits determined using an alternative method under WAC 173-700-359, the bank sponsor shall describe, in the bank instrument, the method used to determine the credits and what the credits represent.

173-700-351 Types of credits (1) There are three stages in the life of a mitigation bank credit:

(a) Potential credit;

(b) Available credit; and
(c) Debited credit.

(2) Credits are initially called potential credits because while they are anticipated to be generated by the bank, they do not actually exist until the bank meets specific performance standards. After a bank attains the performance standards specified in the bank instrument and the department releases a potential credit, then that credit becomes an available credit.

(3) Only available credits can be used to meet permit requirements.

173-700-352 Determination of credits (1) Credits may be generated at a bank site through the restoration, creation, enhancement, or preservation of wetlands or a combination thereof.

(2) Preservation alone may generate credits under WAC 173-700-360.

(3) Buffer areas, beyond the minimum required under WAC 173-700-340, and upland habitats may generate credits to the extent that those areas contribute to the overall ecological functioning and sustainability of the bank.

(4) The department must give priority to the restoration of degraded or former wetlands when determining credits.

(5) The method for credit determination must be the same for the life of the bank.

(6) Debits and credits must be determined using the same method and be in the same unit of "currency".

173-700-353 Default method for determining credits. (1) The department shall use acreage of wetland as the default credit unit for calculating credits at a bank site.

(2) The department, through the MBRT process, shall determine the number of potential credits at a bank using a credit conversion rate.

(3) The credit conversion rate uses a ratio of acre-credits generated at the bank site to acres of activity such as restoration, creation, enhancement or preservation: (**Acre-credit : Acres of activity**).

(4) Except as provided in WAC 173-700-358, the department must determine the credit conversion rates for individual banks from within the ranges specified in this subsection.

(5) This section and WAC 173-700-354 through WAC 173-700-358 do not apply to banks using an alternative method to determine credits under WAC 173-700-359.

173-700-354 Wetland credit conversion rates The ranges for establishing conversion rates for wetland areas are as follows:

If the mitigation activity is:	**The conversion rate can range from:** **Acre credit : Acre mit. activity**
Restoration	1:1 to 1:2
Creation	1:1 to 1:5
Enhancement	1:2 to 1:6
Preservation: In combination with restoration or creation of wetlands	1:2 to 1:10
Preservation alone	1:5 to 1:20

173-700-355 Criteria for determining conversion rates for wetlands Unless an alternate credit determination method is used under WAC 173-700-359, the department, through the MBRT process, shall use the following criteria to determine specific conversion rates for wetlands on a bank site:

(1) The anticipated net gains in wetland functions at the bank site;

(2) The quality of the wetlands and habitats at the bank site;

(3) The rarity of the wetlands and habitats at the bank site;

(4) The degree to which the bank provides functions that are degraded or limited in a watershed;

(5) The habitat value of the bank site;

(6) The site’s contribution to the protection or recovery, or both, of state or federally listed threatened or endangered species, protection of state priority species and habitats, and locally significant habitats;

(7) The size, quality, and functioning of the buffers for the site;

(8) The degree of connectivity to other habitats and open space areas;

(9) The likelihood of the successful implementation of the site design and successful performance of the targeted wetland functions;

(10) The quality of supporting information provided; and,

(11) Public education and access, if ecologically appropriate.

173-700-356 Conversion rates for uplands and buffer areas (1) Buffers provided above and beyond the minimum buffer required under WAC 173-700-340 are eligible to generate credit. Such buffer areas are called eligible buffers.

(2) Eligible buffers and other upland habitats may generate credits at a conversion rate from 1:5 to 1:20.

173-700-357 Criteria for determining conversion rates for uplands and eligible buffer areas Unless an alternate credit determination method is used under WAC 173-700-359, the department, through the MBRT process, shall use the following criteria to determine specific conversion rates for uplands and eligible buffers on a bank site:

(1) Degree of contribution to the ecological functioning of the bank;

(2) The adequacy of the area to perform the desired function(s);

(3) Adjacent land uses including foreseeable future land uses; and

(4) Connectivity to other habitats and open space areas.

173-700-358 Exceptions to credit conversion ranges (1) The department, through the MBRT process, may allow a conversion rate for wetlands or non-wetland areas that are outside of the ranges specified in WAC 173-700-354 and WAC 173-700-356.

(2) All exceptions for credit conversion rates authorized by the department must be:

(a) Made on a case-by-case basis, considering the specific circumstances of a bank; and
(b) Based on ecological considerations.

173-700-359 Using an alternative method to calculate credits The department may allow the use of an alternative method to determine credits so long as:

(1) The department, through the MBRT process, approves of the method;

(2) The method is applicable and appropriate for the Pacific Northwest;

(3) The method is applicable for use on projects debiting from the bank; and

(4) The same method is applied to the bank throughout the operational life of the bank.

173-700-360 Credits for preservation (1) Preserving wetlands or associated uplands may generate credit when the preservation occurs in conjunction with the restoration, enhancement, or creation of a wetland.

(2) Preservation of wetlands as the sole means of generating credits may be approved in exceptional circumstances by the department, through the MBRT process if:

(a) The area proposed for preservation is a high quality system; and
(b) The area proposed for preservation is at risk because the wetland is under demonstrable threat of loss, or substantial degradation, due to human activities that might not otherwise be expected to be restricted.

173-700-361 Determining high quality wetland systems (1) The department shall determine whether a site is a high quality system for preservation when the preservation is the only credit-generating activity in a bank.

(2) The factors that the department must consider in making this determination include whether the wetland:

(a) Has a Category I or II wetland rating (Category III only in exceptional cases);
(b) Is a rare wetland type;
(c) Provides habitat for threatened or endangered species;
(d) Is located in a floodway, or in a portion of a floodplain that is documented as a frequently flooded area, or is providing flood retention and storage;
(e) Provides biological or hydrological connectivity or both;
(f) Is of high regional or watershed importance, such as listed as a priority site in a watershed plan; or
(g) Contains high native species diversity.

173-700-370 Schedule for the release of credits (1) Releases of credits must be tied to the attainment of performance standards (See WAC 173-700-380) specified in the bank instrument.

(2) The department, through the MBRT process, shall determine a schedule for the release of credits at individual banks.

(3) The department must determine the number of credits to be released when the bank attains specific performance standards.

(4) The department shall base the number of credits to be released on, but not limited to, the following criteria:

(a) The amount of ecological gain at the time of the release;
(b) The bank sponsor's experience and success with similar types of wetland projects;
(c) The expected length of time necessary to achieve project goals for wetland function performance and wetland types; and
(d) The possibility of design failure.

(5) The bank sponsor shall include in the bank instrument the schedule for release of credits at the attainment of specific performance standards, and the amount of credit available for each release.

173-700-371 Limits on credit releases (1) The credit-release schedule and amount of credits eligible for release may not exceed the maximum amounts under WAC 173-700-372 through WAC 173-700-375.

(2) The department must release credits when it concurs that the bank has attained all of the performance standards required for a specific release.

(3) The maximum percentages of credits able to be released under WAC 173-700-372 through WAC 173-700-374 do not include credits generated by preservation of wetlands.

(4) The department, through the MBRT process, may release potential credits generated by the preservation of existing wetlands or aquatic resources after the minimum requirements specified in WAC 173-700-372 have been met.

173-700-372 Credit release - pre-construction (1) The department, through the MBRT process, must determine if it is appropriate to allow credits to be released from a wetland mitigation bank before a bank is constructed. The department must determine whether to allow pre-construction releases of credits on a case-by-case basis, which considers the particular ecological and economic circumstances of each bank.

(2) Initial physical and biological improvements must be completed within one year following the initial release of credits.

(3) The following criteria must be met prior to any release of credits:

(a) The bank instrument is signed and approved;
(b) The permanent protection mechanism and financial assurances are established; and

(c) Ownership of the bank site is secured.

173-700-373 Credit release – after construction (1) Up to forty percent of the total potential credits may be released when the department, in consultation with signatory agencies, approves:

(a) The complete implementation of construction plans; and
(b) The as-built condition of the bank.

(2) Approval of the as-built condition of a bank includes the following steps:

(a) The bank sponsor must submit, to the department, the final as-built plans that reflect the final grading and planting of the bank site, and sufficient copies of the final as-built plans for the bank's signatories;
(b) The department must review the final as-built plans;
(c) The department, or its designee, must inspect the as-built condition of the bank. The department shall invite the bank's signatories and other interested members of the MBRT to inspect the as-built condition of the bank; and
(c) If the department approves of the as-built plans and the constructed condition of the site, then the department must release the amount credit specified in the bank instrument.

173-700-374 Credit release – Attainment of hydrologic performance standards

(1) Up to fifty percent of total potential credits may be released when the department, in consultation with signatory agencies, determines that the hydrologic performance standard(s), at a minimum, has been attained.

(2) The department, through the MBRT process, may require that additional performance standards be met prior to releasing up to fifty percent of the total potential credits.

173-700-375 Credit release - Final release (1) The department may not release all of the potential credits until the bank has fully attained all of the performance standards specified in the bank instrument.

(2) After a bank site has successfully attained all of its performance standards and the department concurs that all performance standards have been attained, the department must release all remaining potential credits.

173-700-376 Additional credit releases (1) Releases of credits earlier than those specified in the bank instrument may be approved by the department, in consultation with the signatories, as long as the maximum percentages for the release of potential credits specified in WAC 173-700-372 through WAC 173-700-375 are not exceeded.

(2) Earlier releases of credits may be warranted if the department, in consultation with the signatories, requests the sponsor to perform actions beyond those identified in the bank instrument in order to increase the projected functions of the site. Implementation of management activities that are necessary to attain the performance standards required in the bank instrument are not included.

(3) An addendum to the bank instrument shall document any deviation from the credit release schedule.

173-700-380 Performance standards (1) The bank sponsor must specify the bank's performance standards in the bank instrument.

(2) Performance standards must be based on the objectives and goals of the bank identified in the bank instrument and linked to a specific objective.

(3) Performance standards must identify measurable values for variables linked to specific objectives.

(4) The department, through the MBRT process, may require multiple years of monitoring data to document the sustainable attainment of specific performance standards, particularly hydrologic performance standards.

(5) A bank is considered fully successful when all of the performance standards specified in the bank instrument have been attained.

173-700-390 Financial responsibility (1) Certification of a wetland mitigation bank under this rule does not imply or guarantee the financial viability of the wetland mitigation bank.

(2) Bank sponsors are responsible for conducting any financial studies prior to implementation of a bank instrument to determine the financial risks and potential economic viability of the bank.

(3) The department may not consider the economic standing or condition of a bank when implementing mitigation sequencing, determining unavoidable impacts, or evaluating compensation alternatives for debit projects.

173-700-391 Financial assurances. (1) The department, through the MBRT process, must require that financial assurances be posted to ensure that the potential risks to the environment from unsuccessful mitigation banks are minimized.

(2) The department must determine the amount of financial assurances required on a bank-specific basis.

(3) The amount of financial assurances required by the department must be commensurate with the degree of risk of bank failure and the nature and extent of site alteration and development.

(4) The department may reduce the amounts of posted financial assurances over the operational life of the bank as the bank matures and the risk of failure is reduced.

(5) The bank instrument and the financial assurance mechanisms must specify the financial requirements and conditions, and the entity responsible for the release or cashing of the financial assurances.

(6) The department must determine the adequacy of the proposed financial assurances prior to certification.

173-700-392 Levels of financial assurances The department may require all of the following levels of financial assurances for mitigation banks:

(1) Financial assurances for construction of the bank site;

(2) Financial assurances for short-term management of the bank (see WAC 173-700-420); and

(3) Financial assurances for long-term management of the bank (see WAC 173-700-421).

173-700-393 Financial assurances for construction. (1) When credits are released prior to the construction of a wetland mitigation bank, a financial assurance sufficient to cover the anticipated costs of construction shall be required prior to any release of credits.

(2) The amount of the financial assurance must be sufficient to cover the estimated costs for construction plus the costs for contract administration and overhead.

(3) Construction cost estimates must be based on the costs of having an independent contractor perform the construction of the bank. The sponsor must provide the department with two written estimates from qualified contractors.

(4) The department shall authorize the release of the financial assurance mechanism for bank construction after the department has approved the as-built condition of the bank.

(5) Banks may be developed in phases as specified in the bank instrument. If any credits are released prior to the construction of the bank or a phase of the bank, the department must require a financial assurance sufficient to cover the costs of construction of that phase plus administrative costs incurred by the department.

(6) The department may not require a financial assurance for construction if the first release of credits for a bank after the bank has been constructed and the department has approved the as-builts.

173-700-394 Financial assurances for short-term management. (1) The department must require a financial assurance for short-term management (See WAC 173-700-420) for all banks that have credit releases prior to full attainment of all performance standards.

(2) The amount of the financial assurance must be sufficient to cover all short-term maintenance activities under WAC 173-700-420 for the operational life of the bank.

(3) The cost estimates for short-term management must be based on the costs to have the applicable work in subsection (5) of this section performed by an independent contractor.

(4) The sponsor shall provide the department with two written estimates from qualified contractors.

(5) Monitoring and maintenance expenses used to determine the amount of the short-term management financial assurance may include, but are not limited to:

(a) Estimated costs for a contractor to implement the contingency actions identified in the bank instrument;
(b) Estimated costs of all monitoring activities required in the monitoring plan for the bank as specified in the bank instrument;
(c) Costs to implement the site plan, such as irrigation, control of invasive species, or phased planting; and
(d) Estimated costs for management activities required during the operational life of the bank as specified in the bank instrument (e.g. control of invasive vegetation or phased plantings), plus department costs for contract administration and overhead.

173-700-395 Financial assurances for long-term management (1) The department must require a financial assurance for the long-term management (see WAC 173-700-421) of a wetland bank site.

(2) The bank sponsor must secure sufficient funds for the anticipated long-term management costs as required by the department.

(3) The purpose of the long-term financial assurance is to ensure that the long-term manager or owner of a bank site has the financial resources available to perform the minimum responsibilities of any real property owner and ensure that the bank site remains in its natural condition.

(4) These responsibilities may include but are not limited to:

(a) Payment of property taxes;

(b) Control of noxious weeds;

(c) Maintenance of structures such as water control structures, fences, trails or signs; and

(d) Other long-term management activities required in the bank instrument.

(5) The bank sponsor must provide department with two estimates for the costs of annual maintenance of the bank site.

(6) If the ownership of the site is transferred in the future, the financial mechanism for long-term management must remain with the entity responsible for the long-term management of the bank.

PART V

OPERATION OF BANKS

173-700-400 Monitoring The goals of monitoring bank sites are to:

(1) Document the post-construction baseline conditions at the bank site;

(2) Document the condition of the bank site as it develops over time;

(3) Document the attainment of performance standards; and

(4) Provide early identification of problems in the site's development to trigger potential contingency actions.

173-700-401 Monitoring plan (1) The bank sponsor must develop a monitoring plan for each bank site and include it in the bank instrument.

(2) The monitoring plan must include:

(a) A list of the bank's performance standards;
(b) A description of the variables that will be monitored and how they will be evaluated;
(c) A description of the methods or protocols used to monitor the identified variables;
(d) A schedule of monitoring including details regarding the time of year, frequency, and duration;
(e) A description of proposed photo documentation of the site; and
(f) A detailed contingency plan as outlined in WAC 173-700-402.

173-700-402 Contingency plan (1) Each bank instrument must include a contingency plan in case the bank fails to attain any performance standards.

(2) The contingency plan for a bank site must include the following elements:

(a) Identification of potential causes for site failure;
(b) Alternatives for contingency actions that may be required if the monitoring indicates that the site will not achieve specific performance standards; and

(c) The bank sponsor’s responsibilities in reporting and implementing contingency actions.

173-700-403 Duration of monitoring (1) The bank sponsor must monitor the wetland bank for at least five years.

(2) The department, through the MBRT process, shall determine a monitoring schedule for the bank that is of sufficient duration to show that the bank is progressing toward ecological success and sustainability. For example, longer monitoring periods may be required for banks that contain wetland systems that require more time to reach a stable condition (e.g. forested wetlands and estuarine restoration).

(3) The department may require additional monitoring at bank sites where contingency actions have been undertaken.

173-700-404 Monitoring reports (1) The bank sponsor must submit to the department monitoring reports that document the conditions and progress of the bank's development. Those reports must be submitted according to the schedule documented in the bank instrument.

(2) The monitoring report must identify by name and qualification the persons and organizations conducting the monitoring and must contain all data necessary to document compliance with performance standards and the bank instrument.

(3) The report must include, but is not limited to:
(a) Photo points or referenced locations where photographs of the site are taken periodically to document site progress;
(b) Data collected during the monitoring;
(c) A narrative summary of the results of the monitoring;
(d) Discussion of whether applicable performance standards were attained;
(e) Discussion of recommended management activities to improve attainment of performance standards or performance of functions at the site;
(f) Identification of any probable causes for failure of the bank to attain any performance standards; and
(g) Recommendations for contingency actions, if applicable.

173-700-405 As-built reporting (1) Within sixty days after the completion of grading or planting, or both, the bank sponsor must submit to the department a post-construction report documenting the "as-built" conditions of the site.

(2) The bank sponsor must identify in the as-built report any variations from the site design plan approved in the bank instrument.

173-700-410 Obtaining credit releases (1) In order to obtain a release of credits, a bank sponsor must petition the department in writing for a credit release once the bank has met the required performance standards.

(2) The bank sponsor must send the department the petition and must include supporting documentation that the required performance standards have been met.

(3) The department must respond to the petition within thirty days of receipt of the written petition and supporting documents.

(4) The department, or its designee, may conduct an on-site inspection to verify that performance standards have been met. Bank signatories and members of the MBRT are encouraged to participate in the on-site visits.

(5) The bank sponsor must allow the department access to the site and to all documentation relevant to the requested credit release.

(6) The department must grant the release of credits upon its approval of the attainment of the required performance standards.

173-700-411 Recording credit transactions (1) When an available credit is debited from a bank, the bank sponsor must record each credit withdrawal transaction at the auditor's office of the county in which the bank is located.

(2) Any recording fees or other costs are the responsibility of the sponsor.

(3) Each credit withdrawal transaction must include the following:
(a) The wetland mitigation bank application number assigned by the department;
(b) Name of the person or entity purchasing credits;
(c) Location of the debit project that is approved to use bank credits as compensation;
(d) Debit project permit numbers and types;
(e) Debit project impact acreage and wetland types; and
(f) Date and number of credits sold or used.

(4) The bank sponsor must submit a copy of the recorded transaction to the department within thirty days of the auditor's office recording of each withdrawal transaction.

173-700-412 Accounting and tracking of credit transactions (1) The bank sponsor must maintain a separate credit -tracking ledger for each wetland mitigation bank that the sponsor develops.

(2) The bank sponsor must document all credit transactions in the credit-tracking ledger and maintain copies of all credit withdrawal transactions.

173-700-413 Credit-tracking ledger The credit-tracking ledger must include the following information:

(1) Bank sponsor or owner name and contact information;

(2) Wetland mitigation bank application number assigned by the department;

(3) Legal description of the bank location;

(4) Construction date of the bank;

(5) Wetland types and target functions of the bank;

(6) Dates and amounts of all petitions for release of credits;

(7) A balance of all potential credits;

(8) A balance of all available credits; and

9) Dates, amounts, and supporting information as listed in WAC 173-700-411 for all withdrawal transactions.

173-700-414 Annual account reporting (1) By the end of February of each year, the bank sponsor must submit to the department an annual transaction report.

(2) The annual transaction report must include a complete copy of the credit-tracking ledger and, if requested by the department, copies of all credit transactions from the previous calendar year.

173-700-415 Master ledger (1) The department shall maintain a master ledger for each bank and must cross check the bank sponsor's annual transaction report against the master ledger.

(2) The department must notify the bank sponsor within sixty days of receipt of the sponsor's annual report if that report conflicts with the master ledger.

(3) The bank sponsor is responsible for reconciling any discrepancies between the bank sponsor's credit-tracking ledger and the department's master ledger. If the bank sponsor fails to resolve any discrepancies, the department may suspend the further use of available credits under WAC 173-700-630.

173-700-416 Random audits (1) The department may conduct random audits during the operational life of a bank.

(2) The audit may include the department contacting the local jurisdiction(s) and the county auditor's office to verify all transactions listed in a bank's credit-tracking ledger.

(3) In the event of an audit, the bank sponsor must provide all supporting documentation requested by the department in order to verify transactions listed in the bank's credit tracking ledger.

(4) Unexplainable discrepancies between the public records and the bank's credit tracking ledger may result in the department initiating compliance actions under WAC 173-700-600 through WAC 173-700-630.

173-700-420 Short-term management (1) Short-term management includes all activities and actions necessary to ensure the successful development of a wetland bank.

(2) The period of short-term maintenance includes the entire operational life of the bank.

(3) Short-term management includes, but is not limited to, the following activities:
(a) Actions necessary to implement the site plan such as, but not limited to, irrigation, control of invasive species, and phased plantings;
(b) Regular monitoring of the site as described in the monitoring plan for the bank under WAC 173-700-401;
(c) Ongoing maintenance activities required during the operational life of the bank as specified in the bank instrument. For example, a bank may require regular control of invasive species or maintenance of a water control structure; and
(d) Implementation of contingency actions, if required.

173-700-421 Long-term management (1) The bank sponsor must provide long-term management of the bank in order to maintain the wetland bank in its natural state.

(2) The bank sponsor must describe in the bank instrument any anticipated management and maintenance activities.

(3) The long-term maintenance and management activities may include, but are not limited to:
(a) Noxious weed control and removal of invasive species as needed;
(b) Repair and maintenance of any structures on the site;
(c) Repair due to vandalism; and
(d) Tax assessments, utility fees, or other costs for the property on which the wetland bank is located.

(4) The sponsor must identify the long-term manager of the wetland bank either in the bank instrument or the conservation easement, or both.

(5) The department shall require a signed contract or agreement between the department and the long-term manager for the bank. That contract must specify the role and responsibilities of the long-term manager of the site(s).

(6) The owner of a wetland bank may not complete any conveyance of title, easement, lease, or other interest directly related to the wetland bank without adequate and complete provision for the continued management of the wetland bank in a natural state.

173-700-422 Permanent protection (1) Wetland bank sites must be permanently protected and preserved in their natural state. The department shall require that the bank sponsor use institutional controls to ensure the long-term protection and preservation of the bank site.

(2) Institution controls include:

(a) Legal and administrative mechanisms to limit site activities that are incompatible with the goals and purposes of the site. Examples include, but are not limited to, placing a conservation easement on the bank site and designating a long-term manager or steward for the bank;

(b) Physical measures to minimize adverse impacts to the wetland and its biotic community such as erecting signs, fencing, vehicle barriers, and designated trails; and

(c) Establishment of an endowment or trust for the long-term management of the site.

(3) Real estate arrangements must be approved by the department and secured prior to any release of credits. The real estate arrangements must transfer with the property.

173-700-423 Conservation easements for wetland banks The conservation easement for a wetland bank must:

(1) Prohibit alterations to the wetland bank that may interfere with the ecological functioning of the bank;

(2) Require the long-term manager of the wetland bank to notify the department if the owner conveys any interest in the wetland bank;

(3) Require the long-term manager of the wetland bank to notify the department and receive approval from the department for any proposal to use the wetland bank in a manner that is inconsistent with the conservation easement;

(4) Grant the department and its designated representatives the right to enter the wetland bank at reasonable times for the purpose of evaluating compliance with the terms of the bank instrument and the conservation easement; and

(5) Require the owner to include in any instrument conveying any interest in any portion of the wetland bank, notice of the conservation easement under this section.

PART VI

USE OF WETLAND BANK CREDITS

173-700-500 Available credits (1) Potential credits at a bank site that have been released by the department are referred to as "available credits".

(2) An available credit may be used to provide compensation for unavoidable wetland impacts authorized under a federal, state, or local permit in accordance with the conditions of the bank certification and approved bank instrument.

(3) Permitting agencies for debit projects are responsible for determining if the use of available credits from a bank provides appropriate compensation for the debit project's unavoidable impacts.

173-700-501 Projects eligible to use a bank (1) Projects located within the bank's service area are eligible to apply to use credits from that bank for compensation.

173-700-502 Replacement ratios for debit projects (1) Replacement ratios used to determine compensation requirements for debit projects that use bank credits should generally be lower than those required for project-specific concurrent mitigation.

(2) The replacement ratios for debit projects should take into consideration that credit conversion rates for wetland banks include adjustments for the site's overall ecological benefit. Therefore, one acre-credit at a bank is not necessarily equal to one acre on the ground. In many cases one acre-credit from a bank represents more than one acre at the bank site.

(3) Replacement ratios for debit projects should reflect:

(a) The existing risk of failure at the time credits are debited;
(b) Any temporal losses;
(c) Out-of kind considerations; and
(d) Compensation for the distance from the affected wetland to the bank site.

(4) Recommended replacement ratios for debit projects may be specified in a bank instrument.

173-700-503 Use of credits for fish habitat and hydrologic functions

(1) Impacts to hydrologic functions and fish habitat may not be mitigated with credits from a bank that is located in a different WRIA from the impact site, unless the permitting agency(ies) determines that the use of credits from a bank is appropriate, and consistent with all other applicable laws, including but not limited to the Endangered Species Act and local recovery plans.

(2) Generally, impacts to salmonid fish habitat and hydrologic functions should be mitigated in the same stream reach or sub-basin, respectively, as the impact site.

173-700-504 Use of credits outside of the service area (1) The department, in consultation with the bank's signatories, may authorize the use of mitigation bank credits to compensate for impacts outside of the bank's designated service area if the department deems that use to be practicable and environmentally desirable.

(2) When a debit project located outside of the bank's designated service area requests to use bank credits as compensation for an authorized wetland impact, the bank sponsor must:

(a) Provide written notice of the proposed use of credits and a request for comments to the department and the bank's signatories;
(b) Convene a meeting of the signatory agencies, if necessary;
(c) Obtain written approval from the department and the bank's signatories on the proposed use of credits;
(d) Send copies of the approvals to the department; and
(e) Include the approval documents as an addendum to the bank instrument.

(3) Linear projects, such as roadways, transmission lines, distribution lines, pipelines, or railways, may be eligible to use a bank even though all of the projects' impacts are not located within the bank's service area. However, the following conditions must be met:

(a) At least one impact from the project must lie within the bank's service area;
(b) The bank must provide appropriate compensation for the impacts; and
(c) The determination to allow use of bank credits for impacts lying outside of a bank's service area must take into consideration the elements used in determining the bank's service area as listed in WAC 173-700-311.

173-700-505 Use of credits for more than one permit (1) A credit must only be used to compensate for one authorized impact to wetlands or aquatic resources. Once a credit has been used (debited), it may not be used as compensation for a different wetland impact authorized under another regulatory program.

(2) Some debit projects may require authorization under more than one regulatory program, (e.g. Section 404 authorization, local grading permit and a hydraulic project approval). A credit can be used to compensate for one impact that requires multiple authorizations for the same impact.

PART VII

COMPLIANCE WITH CERTIFICATION

173-700-600 Compliance with the terms of certification (1) It is the department's goal to ensure that the establishment and operation of a mitigation bank is consistent with the terms and conditions of the certification as specified in the bank instrument. The department may use one or more of the methods provided for in WAC 173-700-610 through WAC 173-700-630 to gain compliance of certified banks.

173-700-610 Contingency actions (1) If a bank is unable to attain the required performance standards specified in the bank instrument, the department may require that the sponsor implement contingency actions necessary to correct any site deficiencies.

(2) Upon the bank sponsor's determination that the bank is not or will not attain performance standards, the bank sponsor shall notify the department and the bank's signatories that the bank site will not attain the required performance standards.

(3) Any agency, entity, or person may also notify the department if it has supporting documentation that a bank site is not successfully meeting the required performance standards.

(4) The notification must include:

(a) A clear statement of the problem;
(b) Supporting documentation of the problem, such as photographic evidence, documentation from field reviews, the submitted monitoring report or the credit release petition; and
(c) Recommendations for contingency actions or other alternatives to address the problem.

(5) The department, with recommendations from the bank's signatories, shall evaluate and determine the appropriate contingency actions required for the site. The department's determination for contingency action(s) must include:

(a) A description of the contingency action(s) that must be undertaken;
(b) A schedule for the sponsor to implement the required contingency action(s);
(c) Any additional monitoring and reporting requirements for the bank, if applicable ; and
(d) Any adjustments to the credits in the wetland bank and the credit release schedule.

(6) Interested signatories of the bank shall notify the department if they have comments on the proposed contingency actions as specified in WAC 173-700-740.

173-700-611 Notice of required contingency actions (1) The department must submit, in writing, its determination on required contingency actions to the bank sponsor and the bank's signatories.

(2) This determination must be attached as an addendum to the bank instrument.

173-700-612 Compliance with required contingency actions (1) If the bank sponsor does not complete the required contingency actions within the schedule specified in the department's determination for contingency actions, the department must notify the bank sponsor that it is out of compliance with the contingency requirements.

(2) The department must send the notification of non-compliance by certified mail with return receipt requested and must require a written response from the sponsor.

(3) The sponsor must respond in writing to the department within fifteen days of receipt of the non-compliance notification. The response shall include an explanation of why the sponsor has not implemented the required contingency actions and a schedule for when the sponsor will complete the required contingency actions.

(4) The department, in consultation with interested signatories of the bank, shall determine whether the reasons provided by the sponsor constitute extenuating circumstances and shall determine whether to extend the schedule for instituting contingency actions.

(5) If the department determines that the schedule should not be extended, the department must notify the sponsor by certified mail with return receipt requested that it intends to either:
(a) Use the posted financial assurances to have the required contingency actions completed; or
(b) Adjust the total number of potential credits at the bank under WAC 173-700-620.

(6) The department shall send a copy of the non-compliance notification to the bank's signatories.

(7) Thirty days after the date of the bank sponsor's receipt of the department's notification in subsection (5) of this section, the department may initiate the actions specified in the notification.

173-700-620 Adjustments in total credits (1) The department may adjust the final number of credits available at a bank based on actual conditions of the bank site at the time of the final release of credits.

(2) The department shall consult with a bank's signatories to determine whether the number of credits at a bank should be adjusted at the time of the final release of credits.

(3) The department may adjust the number of credits at a bank in the following ways:

(a) The department, in consultation with the bank signatories, may reduce total number of credits at a bank site if all of the required performance standards cannot be attained;

(b) The department, in consultation with the bank signatories, may increase the number of credits available at a bank site if:

(i) All of the required performance standards are met; and
(ii) The department determines that the site provides higher levels of function than was originally projected; or

(c) After the department concurs that all of the required performance standards have been met, the department may recalculate the remaining available restoration and creation credits to achieve a conversion rate of one to one. The revised conversion rates for restoration or creation credits should be based on the criteria listed in WAC173-700-355.

173-700-630 Suspension of credit use (1) The department may suspend a bank's use of credits to bring a bank into compliance. If the department suspends the use of credits, credits may not be debited until the department lifts the suspension.

(2) The suspension shall include all available credits at a bank.

(3) The department may suspend the use of available credits for the following reasons:
(a) If the department determines that a bank is out of compliance with the terms of its certification and the sponsor has not implemented the contingency actions required by the department;
(b) If the department determines that a bank is not in compliance with the terms of its certification and that the sponsor has not made reasonable efforts to bring the bank into compliance; or

(c) If the department determines that there is documented fraudulent use of the bank.

(4) If credit use is suspended by the department, the department must notify the bank sponsor by certified mail with return receipt requested that further use of credits has been suspended.

(5) The department shall maintain the suspension until compliance is achieved.

(6) The use of credits shall remain suspended until the department notifies the bank sponsor in writing that credit use may be resumed.

PART VIII

ROLES AND RESPONSIBILITIES

173-700-700 Responsibilities of the bank sponsor (1) The bank sponsor must meet the requirements of these rules.

(2) It is the responsibility of the bank sponsor to provide the wetland mitigation prospectus and bank instrument consistent with WAC 173-700-223 and 173-700-241, respectively.

(3) It is the bank sponsor's responsibility to incorporate specific elements required by the department and the MBRT into the final bank instrument.

(4) The bank sponsor is responsible for obtaining all required federal, state, and local permits and approvals for the construction and establishment of the wetland mitigation bank.

(5) The bank sponsor is responsible for assuring the success of the restoration, creation, enhancement, or preservation activities, or a combination of these activities, at the mitigation bank.

(6) The bank sponsor is responsible for the construction, operation, maintenance, permanent protection, and all costs including contingency actions, if required, and financial assurances for the mitigation bank in accordance with the bank instrument and this rule.

(7) The bank sponsor must secure adequate funds for the operation and maintenance of the bank during its operational life and the long-term management and permanent protection of the bank sites.

(8) The bank sponsor must secure real estate arrangements that will permanently protect the property on which the bank is located.

(9) The bank sponsor is responsible for the evaluation and protection of historic, cultural, and archeological resources of the bank site.

(10) The bank sponsor must monitor the development of the bank site and report findings to the department under WAC 173-700-404.

(11) The bank sponsor is responsible for submitting written petitions for releases of credits under WAC 173-700-410.

(12) The bank sponsor is responsible for the accounting and maintenance of ledgers regarding the deposit and withdrawal of credits from the mitigation bank under WAC 173-700-412 and WAC 173-700-413.

(13) The bank sponsor is responsible for obtaining all approvals for the bank's signatories when proposing to use credits in a manner that is inconsistent with the terms and conditions of the bank instrument.

(14) The bank sponsor may request the program manager of the Shorelands and Environmental Assistance Program to review actions taken to develop the bank instrument if the sponsor believes that a particular decision raises concern regarding the application of this rule, or that inadequate progress has been made by the MBRT on the bank instrument.

173-700-710 Role of the department (1) The department is responsible for making the final decision on bank certifications.

(2) The department must fully consider recommendations from the MBRT and public comments submitted as part of the certification process.

(3) The department is responsible for inviting members to and convening the MBRT. The department must serve as chair of the MBRT and shall invite the local jurisdiction to serve as co-chair.

(4) The department is responsible for maintaining master ledgers on certified banks and authorizing the release of credits as specified in bank instruments under WAC 173-700-415 and WAC 173-700-410, respectively.

(5) The department shall be responsible for approving financial assurances, and releasing financial assurances or cashing posted financial assurances to ensure compliance with the terms of a bank instrument.

(6) The department shall implement the compliance procedures as described in WAC 173-700-600 through WAC 173-700-630 if a bank is determined to be out of compliance with the terms of its certification.

(7) The department must determine the requirements for implementation of contingency actions when a bank is unable to attain its performance standards.

(8) If the sponsor does not achieve compliance with the terms of the bank instrument within the timeframe specified by the department, the department may suspend the use of credits as described in WAC 173-700-630.

173-700-720 Role of local jurisdiction(s) (1) For the purposes of this section, local jurisdiction(s) means the local jurisdiction(s) where the wetland bank site is located.

(2) The local jurisdiction(s) shall be invited by the department to participate on the MBRT.

(3) The local jurisdiction(s) may participate as co-chair of the MBRT with the department.

(4) After receipt of the department's decision to approve certification, the local jurisdiction(s) must review the certification and if it concurs with the decision, the local jurisdiction(s) must sign the bank instrument to indicate its concurrence with the bank certification.

173-700-730 Role of the mitigation bank review team (1) The purposes of a Mitigation Bank Review Team (MBRT) are to:
(a) Assist in the development of bank instruments;
(b) Facilitate the review of wetland mitigation bank proposals; and
(c) Avoid duplicative processes for bank certification and approval.

(2) It is the role of the MBRT to help ensure that certified wetland banks are technically feasible and ecologically desirable.

173-700-731 Mitigation bank review team responsibilities (1) The MBRT shall participate in negotiations with a bank sponsor on the terms of a bank instrument.

(2) The MBRT shall review certification applications, and propose recommendations to the department, and the local jurisdiction(s) where the bank is located, on the certification of individual mitigation banks.

(3) MBRT representatives are responsible for notifying the department if they have comments for the department to consider on the requirements for contingency actions or on the release of credits.

173-700-732 Mitigation bank review team membership (1) The MBRT is composed of a maximum of 15 members representing agencies with an interest in the bank, including the department, the local jurisdiction(s), and appropriate representatives from federal, state, and local regulatory and resource agencies and tribes.

(2) Entities typically invited include, but are not limited to, the US Army Corps of Engineers, the Environmental Protection Agency, US Fish and Wildlife Service, National Marine Fisheries Service, Natural Resource Conservation Service, Washington Department of Fish and

Wildlife, Washington Department of Natural Resources, tribes, and local jurisdictions within the proposed bank's service area.

(3) The department may invite interested members of the public or non-governmental organizations to participate on the MBRT as advisory members.

(4) The department shall serve as chair of the MBRT and shall invite the local jurisdiction(s) where the bank is located to serve as co-chair. For bank proposals seeking federal approvals in addition to state certification, the U.S. Army Corps of Engineers representative may also co-chair the MBRT.

173-700-740 Role of the banks' signatories (1) Signatory agencies for a bank are responsible for providing assistance to the department in overseeing the establishment and operations of that bank.

(2) Signatory agencies must notify the department if they determine that the bank is out of compliance with the terms of its certification and recommend whether compliance actions are warranted to bring the bank into compliance.

(3) Signatory agencies are encouraged to participate in field reviews of the bank site for determining:
(a) Whether the as-built condition of the bank is correct;
(b) Whether contingency actions need to be initiated on a bank site and what those actions should include; and
(c) Whether a credit release petition should be granted.

(4) Signatory agencies shall notify the department if they have any comments regarding the department's proposed contingency actions required under WAC 173-700-610.

(5) Signatory agencies should review and provide comments to the department on any proposed uses of bank credits that are inconsistent with the terms of the certification.

173-700-750 Role of permitting agencies authorizing use of credits
(1) Permitting agencies should document that mitigation sequencing has occurred before approving the use of banking credits to compensate for unavoidable impacts.

(2) The purpose of the documentation is to ensure that the intent of the authorizing statute is met. The authorizing statute states that bank credits should only be used for remaining "unavoidable" impacts after all practicable avoidance and minimization has been implemented.

(3) The rationale used to conclude that the actions are unavoidable should be included in the permit file for the debit project using bank credits for compensation.

PART IX

APPEALS

173-700-800 Appeals process (1) A decision to issue, deny, or modify a final certification may be appealed to the pollution control hearings board under RCW Chapter 43.21B.